

MINING PLAN DECISION DOCUMENT

Crandall Canyon Mine Genwal Coal Company Carbon County, Utah



**U.S. Department of the Interior
Office of Surface Mining Reclamation and Enforcement**

Federal Coal Lease SL-062648

February 1987

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DIVISION OF
OIL, GAS & MINING

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United States Department of the Interior

OFFICE OF SURFACE MINING

Reclamation and Enforcement

WASHINGTON, D.C. 20240

FEB 11 1987

MEMORANDUM

To: Assistant Secretary for Land and Minerals Management

From: Director, Office of Surface Mining Reclamation and Enforcement *Fred O. Christensen*

Subject: Recommendation for Approval of the Crandall Canyon Mine Mining Plan Modification, Genwal Coal Company, Emery County, Utah, Federal Lease SL-062648

I recommend your approval of the Crandall Canyon Mine mining plan modification pursuant to the Mineral Leasing Act (MLA) of 1920, as amended. The Office of Surface Mining Reclamation and Enforcement (OSMRE) has reviewed the permit application package (PAP), and Western Field Operations has informed me that it is prepared to issue a revised permit under the Surface Mining Control and Reclamation Act (SMCRA) for the Crandall Canyon Mine subject to your approval of the mining plan. My recommendation to approve the Genwal Coal Company's mining plan modification is based on: (1) the applicant's complete PAP, (2) OSMRE's proposed permit conditions, (3) public participation, (4) review of the PAP by OSMRE, (5) compliance with the National Environmental Policy Act, (6) documentation assuring compliance with applicable requirements of SMCRA and other Federal laws, regulations, and executive orders, and (7) comments and recommendations or concurrences of other Federal agencies including the findings and recommendations of the Bureau of Land Management with respect to the resource recovery and protection plan and other requirements of the lease and the MLA.

The Secretary may approve a mining plan modification for Federal lands under 30 U.S.C. 207(c) and 1273(c). I find that the proposed operations will be in compliance with all applicable laws and regulations, and I recommend the Crandall Canyon Mine mining plan modification, updated through January 15, 1986, be approved.

Approval:

I approve this mining plan modification:

James E. Laxon
Deputy Assistant Secretary for Land and Minerals Management

2/11/87
Date



United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202
February 3, 1987

MEMORANDUM

TO: Director, Office of Surface Mining Reclamation and Enforcement

THROUGH: Deputy Director, Operations and Technical Services

FROM: Assistant Director, Western Field Operations

SUBJECT: Recommendation for Approval of Genwal Coal Company's Crandall Canyon Mine Mining Plan Modification and Permit Revision, Emery County, Utah, Federal Lease No. SL-062648

I. Recommendation

I recommend approval with conditions of the Genwal Coal Company's Crandall Canyon Mine permit revision for an extension of the underground mining operations. This permit revision was processed under the full requirements of the Utah State program for new permits and consisted of an extension of the existing operations into a new portion of Federal lease SL-062648 (known as the Tract 2 area), which was added to the lease area by a modification of the lease on October 1, 1983. The original mining plan for Federal lease SL-062648 (Tract 1 area) and Federal permit were approved in November 1982 under the Federal lands and Utah State permanent programs.

My recommendation is based on the technical analysis and environmental assessment of the complete application. Upon approval of the mining plan modification by the Assistant Secretary for Land and Minerals Management, Western Field Operations will approve the revision of the Federal permit, UT-0067, to include the Tract 2 area. The Federal permit expiration date will be concurrent with the current Utah State permit expiration date, which is May 13, 1988. The revised permit with conditions, included with this memorandum, will be in conformance with the applicable Federal regulations, the Utah State Program, and the Mineral Leasing Act, as amended.

I also recommend that you advise the Assistant Secretary for Land and Minerals Management, under 30 CFR 746, that the Genwal Coal Company's Crandall Canyon Mine mining plan modification is ready for approval. I concur that the current bond, in the amount of \$136,729.00, is adequate because no additional surface disturbance other than potential subsidence will occur as a result of the approval of the Tract 2 area.

The Utah Division of Oil, Gas and Mining (DOGM) and the Office of Surface Mining Reclamation and Enforcement (OSMRE), identified elements of the applicant's proposal which require conditions to comply with State and Federal law. The State permit ACT/015/032 and conditions are incorporated into the proposed Federal permit UT-0067. Utah DOGM will issue its permit concurrently with the Federal permit.

My recommendation for approval is based on the complete mining plan and permit application package, updated to January 15, 1986. I have determined that this action will not have a significant impact on the human environment.

II. Background

The Crandall Canyon Mine is located in Emery County, Utah, approximately 13 miles northeast of Huntington, Utah. The existing permit area contains 86.8 acres, of which 85.1 acres are federally owned surface and coal in the Manti-LaSal National Forest (83.6 acres are in Federal lease SL-062648 and 1.5 acres are in a U.S. Forest Service Special Use Area). Approximately 1.7 acres are privately owned surface and coal. The proposed Tract 2 expansion of the permit area contains approximately 77.5 acres, all of which is within Federal lease SL-062648. The mining operation will not affect any environmentally sensitive areas. The underground operations will utilize room and pillar mining methods with full pillar extraction during retreat mining in most of the underground workings. The Hiawatha coal seam will be mined at a maximum production rate of 360,000 tons per year. All mining operations are scheduled to cease around the year 1990, unless additional Federal coal leases are obtained by the applicant.

The Crandall Canyon Mine permit application was reviewed by OSMRE and Utah DOGM, under the approved Utah State Program and the Federal Lands Program (30 CFR Chapter VII, Subchapter D). The Resource Recovery and Protection Plan was reviewed by the Bureau of Land Management (BLM) for compliance with the applicable portion of 43 CFR 3480.


The technical analysis, including the cumulative hydrologic impact assessment, for this permit application was prepared by Utah DOGM in coordination with OSMRE. The impacts of the operation were described in the environmental assessment (EA) prepared by OSMRE in November 1982 for the approval of the Tract 1 area and in the EA prepared by the U.S. Forest Service in March 1983 for the Tract 2 area. Based on the EA's and Utah DOGM's technical analysis, including the cumulative hydrologic impact assessment, no significant impacts to the human environment are expected to occur from the approval of mining in the Tract 2 area. These documents, other documents prepared by Utah DOGM, Genwal Coal Company's application, and other correspondence developed during the completeness and technical reviews are part of OSMRE's mining plan and permit application file.

Utah DOGM and OSMRE jointly developed proposed special permit conditions to assure compliance with State and Federal regulations. Condition 1 requires finalization of a mitigation plan for potentially impacted seeps and springs. Condition 2 requires the applicant to submit to Utah DOGM, for approval, corrections of the mining and reclamation plan that were identified by the U.S. Forest Service in its letter dated December 1, 1986.

A chronology of events related to this permit revision application and mining plan modification is enclosed. After Genwal Coal Company published the newspaper notice as required, no written comments, objections, or requests for an informal conference were received. Written concurrence was provided by Bureau of Land Management and U.S. Forest Service, Manti-LaSal National Forest; and the U.S. Fish and Wildlife Service and the State Historic Preservation Officer were consulted.

No major issues were identified in the review of the permit revision application and mining plan modification. In its letter dated January 22, 1987, OSMRE Branch of Compliance identified that the applicant's affiliate, Big Fork Coal Company, owed past due Abandoned Mine Reclamation Fund (AMRF) fees and owes a past due civil penalty for a 1979 OSMRE violation. The past due AMRF fees are being paid pursuant to a settlement agreement, dated April 4, 1986, between Big Fork Coal Company and OSMRE. The past due civil penalty is for a 1979 OSMRE violation that was vacated by Administrative Law Judge Torbett on September 15, 1980.

The information in the permit application and mining plan, as well as other information documented in the recommendation package and made available to the applicant, has been reviewed by Utah DOGM staff in coordination with the OSMRE Project Leader.


Raymond L. Lowrie

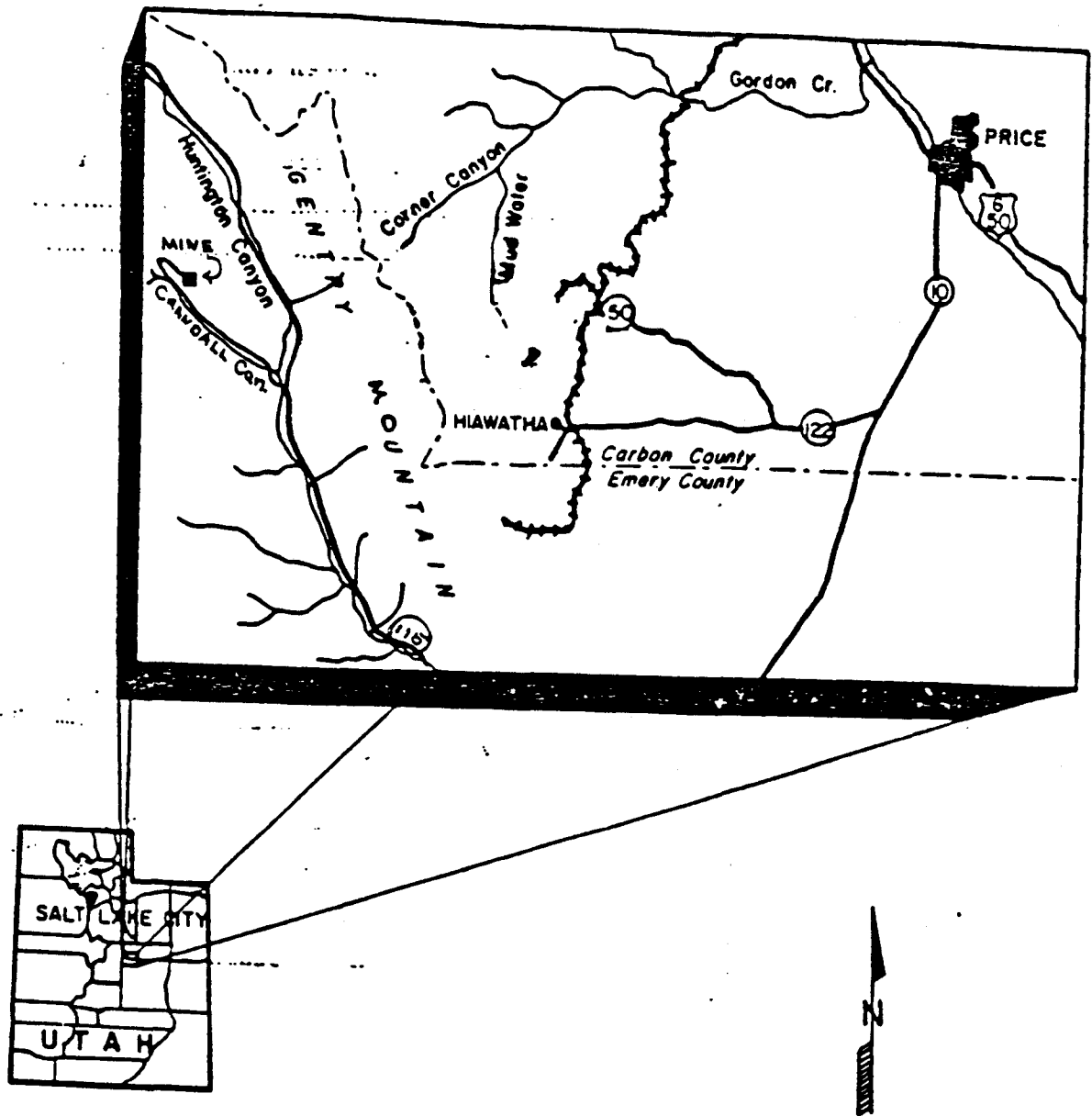
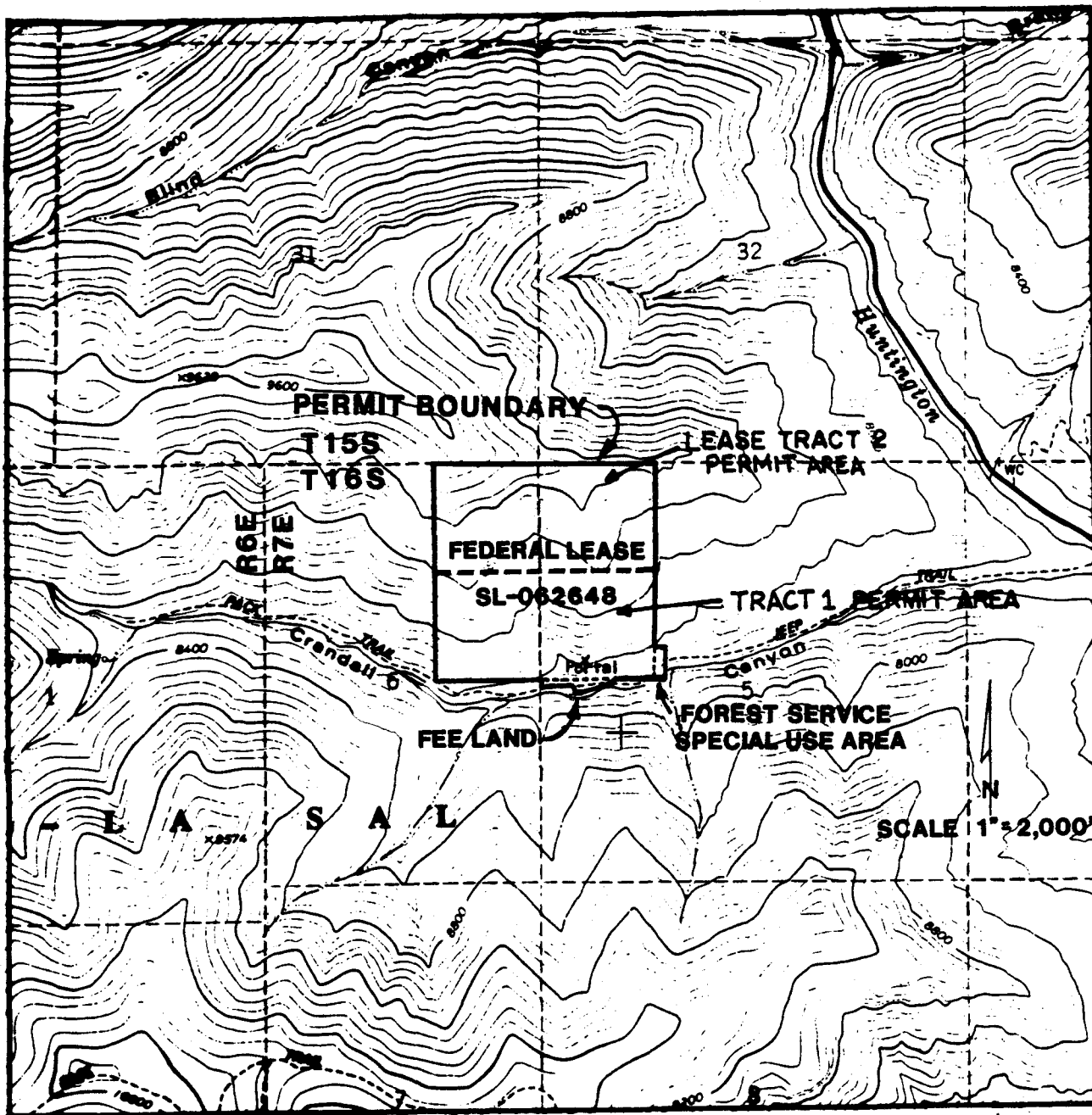


FIGURE 1-1

LOCATION MAP

Genwal Coal Company
Crandall Canyon Mine
Emery County, Utah



CRANDALL CANYON MINE

EMERY COUNTY, UTAH

CHRONOLOGY OF EVENTS

Genwal Coal Company Crandall Canyon Mine Permit Application and Mining Plan Approval

DATE	EVENT
11/22/82	Crandall Canyon Mine mining plan (Tract 1) approved for Federal lease SL-062648.
11/24/82	The Office of Surface Mining Reclamation and Enforcement (OSMRE) issued Federal permit UT-0067 to Genwal Coal Company (Applicant) for the Crandall Canyon Mine Tract 1 area.
05/13/83	The Utah Division of Oil, Gas and Mining (DOGM) issued State permit for the Crandall Canyon Mine Tract 1 area.
10/01/83	Federal lease SL-062648 was modified by the Bureau of Land Management to add the Tract 2 area.
07/18/84	Applicant submitted the permit application package (PAP) for the Tract 2 area to Utah DOGM.
09/17/84	OSMRE received the PAP and commenced its initial review.
10/30/84	OSMRE received BLM's comments on the PAP.
12/31/84	OSMRE transmitted its initial review comments and BLM's review comments to Utah DOGM.
04/08/85	OSMRE received U.S. Forest Service, Manti-LaSal National Forest (USFS), comments on the PAP.
05/31/85	OSMRE transmitted USFS comments to Utah DOGM.
07/08/85	OSMRE notified Utah DOGM of its need for additional information.
07/10/85	Utah DOGM transmitted its Initial Completeness Review comments, including the Federal comments to the Applicant.
08/14/85	Applicant published fourth consecutive weekly public notice in the Emery County Progress.
09/03/85	OSMRE received Applicant's 8/16/85 response to Utah DOGM's Initial Completeness Review comments.
09/27/85	Utah DOGM notified Applicant of remaining completeness deficiencies in PAP.

DATE	EVENT
10/15/85	OSMRE received BLM's review comments of Applicant's 8/16/85 response to Initial Completeness Review comments.
11/08/85	OSMRE received Applicants 11/6/85 response to remaining completeness deficiencies.
11/25/85	Utah DOGM notified Applicant of remaining completeness deficiencies.
01/10/86	Utah DOGM determined PAP to be complete.
01/15/86	OSMRE received Applicant's 12/26/85 and 1/7/86 responses to completeness deficiencies.
02/06/86	OSMRE transmitted BLM's 10/15/85 review comments to Utah DOGM.
03/04/86	OSMRE received Utah DOGM's draft Technical Analysis, including the cumulative hydrologic impact assessment.
03/31/86	OSMRE received BLM's concurrence on the approval of the Resource Recovery and Protection Plan portion of the mining plan.
04/18/86	OSMRE transmitted comments on the draft Technical Analysis to Utah DOGM.
10/03/86	OSMRE received Utah DOGM's final Technical Analysis, including the cumulative hydrologic impact assessment.
12/04/86	OSMRE received USFS's concurrence on the approval of the permit revision application and mining plan.
02/87	OSMRE recommends approval of the permit revision application and mining plan.

FINDINGS

Genwal Coal Company

Crandall Canyon Mine

- I. The Office of Surface Mining Reclamation and Enforcement (OSMRE) has reviewed the permit application package (PAP), updated through January 15, 1986, including the operation and reclamation plan portion of the permit application, and finds that the permit application is accurate and complete and that it complies with the Surface Mining Control and Reclamation Act of 1977 (SMCRA), the Utah State Program, the Federal Lands Program and all other requirements of applicable Federal laws. [Utah Board and Division of Oil, Gas and Mining Coal Mining and Reclamation Permanent Program Regulations Pertaining to Surface Effects of Underground Coal Mining Activities (UMC) 786.19(a)]
- II. The Utah Division of Oil, Gas and Mining (DOGM) has reviewed the permit application and has prepared a technical analysis (TA). OSMRE has reviewed the PAP, Utah DOGM's TA and incorporated documents, and the U.S. Forest Service's (USFS's) March 1983 and December 1985 environmental assessments (EA's). Based on these documents, OSMRE makes the following findings:
 1. The applicant proposes acceptable practices for the reclamation of disturbed lands. These practices have been shown to be effective in the short-term; there are no long-term reclamation records utilizing native species in the Western United States. Nevertheless, OSMRE finds that the applicant has demonstrated that surface coal mining and reclamation activities, as required by SMCRA and the Utah State Program can be feasibly accomplished under the mining and reclamation activities plan contained in the application. [UMC 786.19(b)] (See State's finding 2A.)
 2. The assessment of the probable cumulative impacts of all anticipated coal mining in the general area on the hydrologic balance, as described in UMC 780.21(c) has been made by Utah DOGM and Utah DOGM has determined that the operations proposed under the application have been designed to prevent damage to the hydrologic balance outside the proposed permit area. OSMRE has independently reviewed and concurs with Utah DOGM's assessment. [UMC 786.19(c)] (See State's cumulative hydrologic impact assessment.)
 3. After reviewing the description of the proposed permit area, OSMRE determines this area is:
 - a. Not included within an area designated unsuitable for underground coal mining activities under UMC 764, or 30 CFR 769. [UMC 786.19(d)(1)] (See State's finding 3A; PAP, Sections 1.2 and 2.5.)

- b. Not within an area under study for designation as unsuitable for underground coal mining activities in an administrative proceeding begun under UMC 764, or 30 CFR 769. [UMC 786.19(d)(2)] (See State's finding 3B.)
 - c. Not unsuitable for mining in accordance with section 522(b) pursuant to section 522(a)(2) of SMCRA.
 - d. Not unsuitable for mining in accordance with section 522(b) pursuant to standards set forth in section 522(a)(3) of SMCRA. [See USFS EA.]
 - e. Located on Federal lands within the boundaries of the Manti-LaSal National Forest. However, based on OSMRE's analysis and on the concurrence of the Forest Service, the surface operations and impacts of the Crandall Canyon mine are incident to an underground coal mine and will not be incompatible with significant recreational, timber, economic, or other values of the Manti-LaSal National Forest. [UMC 786.19(d)(3)] (See USFS letter dated December 1, 1986.)
 - f. Not on any lands within the boundaries of the National Park System, the National Wildlife Refuge Systems, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act, and National Recreation Areas designated by Act of Congress. [UMC 786.19(d)(3)] (See State's finding 3C; PAP, Sections 1.2 and 2.5.)
 - g. Not within 100 feet measured horizontally of the outside right-of-way line of any public road, except where mine access roads or haulage roads join in such right-of-way line. [UMC 786.19(d)(4)] (See State's finding 3D; PAP, Sections 1.2 and 2.5.)
 - h. Not within 300 feet measured horizontally of any occupied dwelling. [UMC 786.19(d)(5)] (See State's finding 3E; PAP, Sections 1.2 and 2.5.)
 - i. Not within 300 feet measured horizontally of any public building, school, church, community, or institutional building, public park, or within 100 feet measured horizontally of a cemetery. [UMC 786.19(d)(3)] (See State's finding 3C; PAP, Sections 1.2 and 2.5.)
4. OSMRE's issuance of a permit is in compliance with the National Historic Preservation Act and implementing regulations (36 CFR 800). [UMC 786.19(e)] (See State's finding 4; State Historic Preservation Officer concurrence letter, dated October 2, 1984.)

5. This operation does not involve underground or surface mining of coal where the private mineral estate to be mined has been severed from the private surface estate. [UMC 786.19(f)] (See State's finding 5.)
6. The applicant has submitted proof and OSMRE's records indicate that all underground or surface coal mining activities owned or controlled by the applicant are not currently in violation of any law, rule, or regulation of the United States, or of any State law, rule, or regulation enacted pursuant to Federal law, rule, or regulation pertaining to air or water environmental protection. [UMC 786.19(g)] (Correspondence from OSMRE Compliance Branch, dated January 22, 1987.)
7. The applicant has submitted proof and OSMRE's records confirm that all reclamation fees required by 30 CFR Chapter VII, Subchapter R have been paid. [UMC 786.19(h)] (Correspondence from OSMRE Compliance Branch, dated January 22, 1987.)
8. OSMRE records show that the applicant or the operator, if other than the applicant, does not control and has not controlled mining operations with a demonstrated pattern of willful violations of SMCRA of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of SMCRA. [UMC 786.19(i)] (Correspondence from OSMRE Compliance Branch, dated January 22, 1987.)
9. Underground coal mining and reclamation operations to be performed under the permit will not be inconsistent with such operations anticipated to be performed in areas adjacent to the proposed permit area. [UMC 786.19(j)] (See State's finding 9.)
10. The applicant has submitted the performance bond or other equivalent guarantee required under UMC Parts 800-806 and the Utah State program, prior to the issuance of the permit. [UMC 786.19(k)]
11. Negative alluvial valley floor determinations have been made for the drainages in the proposed permit area and adjacent areas. [See State's finding 12.)
12. The applicant has provided evidence and Utah DOGM and OSMRE have found there are no prime farmlands in the permit area. [UMC 786.19(l)]
13. The proposed postmining land use of the permit area has been approved by Utah DOGM, the U.S. Forest Service Manti-LaSal National Forest and OSMRE. [UMC 786.19(m)] (See letter of concurrence from U.S. Forest Service, dated December 1, 1986; State's finding 13.)

14. Utah DOGM and OSMRE have made all specific approvals required by SMCRA, the approved Utah State Program and the Federal Lands Program. [UMC 786.19(n)] (See State's finding 14.)
15. The proposed activities will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. [UMC 786.19(o)] (See State's finding 15; U.S. Fish and Wildlife letter, dated January 7, 1987.)
16. The applicant has satisfied the applicable requirements of 30 CFR Part 785. [30 CFR 773.15(c)(8)]
17. The proposed surface coal mining and reclamation operations will not adversely affect a private family burial ground. [30 CFR 773.15(c)(11)]

for Charles M. McClure, Acting
Chief, Division of Federal Programs

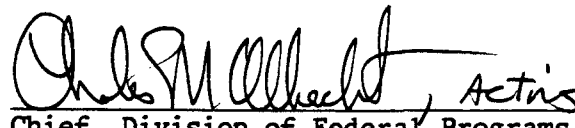
2/3/87
Date

FINDING OF NO SIGNIFICANT IMPACT

Genwal Coal Company
Crandall Canyon Mine

The technical analysis (TA), including the cumulative hydrologic impact assessment, prepared by the State of Utah for the Tract 2 permit revision application, the environmental assessment (EA) prepared in November 1982 by the Office of Surface Mining Reclamation and Enforcement (OSMRE), and the EA's prepared by the U.S. Forest Service in March 1983 and December 1985, identify certain environmental impacts that would result from the Federal approval of the permit revision application and mining plan modification for Genwal Coal Company's Crandall Canyon Mine. However, OSMRE finds that impacts would not be significant. The permit revision application, submitted to the State under its approved permanent program, proposes a total permit area of 164.3 acres, 86.8 acres of which were previously permitted and 77.5 acres of which were not previously permitted. The permit area includes one Federal lease, SL-062648.

Based upon the evaluation of impacts given in the TA and EA's, I find that no significant impacts to the human environment would result from the mine expansion. Therefore, an environmental impact statement is not required.

for  *Acting*
Chief, Division of Federal Programs
Western Field Operations
2/3/87
Date

Office of Surface Mining
November 1982

ENVIRONMENTAL ASSESSMENT

GENWAL COAL COMPANY's INC.
CRANDALL CANYON MINE
MINING AND RECLAMATION PLAN

Introduction

The Genwal Coal Company Inc. has submitted a 5 year coal mining permit application and mining plan for the Crandall Canyon Mine to the State of Utah, Division of Oil, Gas, and Mining (UDOGM), and to the U.S. Department of the Interior, Office of Surface Mining (OSM).

The proposed new underground mine and related surface facilities are located in Emery County, approximately 13 miles northeast of Huntington, Utah. The Federal lease #SL-062648 contains 80 acres of which 9.7 acres will be disturbed by associated surface disturbances. The facilities under review are located in the SW1/4 of the NW1/4 of Section 5, and the SE1/4 of the NE1/4 of Section 6 in Township 16 South, Range 7 East, SLM. This is within the confines of Crandall Canyon, a 6.1 mile long southwest trending extension from Huntington Canyon.

Crandall Creek parallels the southeastern side of the mine plan area and flows in a northeasterly direction into Huntington Creek. Huntington Creek merges with Ferron Creek and forms the San Rafael River which is a tributary of the Green River. Coal mining activities have taken place in Crandall Canyon but only on a small scale during the early twentieth century. The new proposal includes entering old workings (old Tip Top Mine) and mining two seams of coal. The proposed surface facilities include a temporary trailer office, a power generator and fuel storage area, an open conveyor belt system, two open coal storage stockpiles, two vehicle parking areas, a haul truck loop turnaround and associated sedimentation control structures. Portable toilets will be used and some shop and office areas may be constructed underground at a future date. The operation will employ a project workforce of approximately 12-15 individuals. Due to limited reserves, the life of the project is only five years and the total surface disturbance will be 9.7 acres.

Access to the site has proved to be major factor in its development. Considerable cooperation and planning has been necessary with the U.S. Forest Service who wish to maintain and manage complete access through the site to the upper reaches of the canyon after termination of mining operations. The road has been designated as a Forest Development Road and hence, is not a public road. However, it may be used by the public, although usage is entirely subject to Forest Service discretion.

Purpose and Need for Action

UDOGM has reviewed the Genwall Coal Company's Inc., Crandall Canyon Mine 5 year permit application and has submitted a technical analysis (TA) document to OSM. UDOGM is recommending approval of the application to OSM. Pursuant to 30 CFR 741.4(d), OSM must recommend approval, disapproval, or conditional approval of the mining plan to the Assistant Secretary for Energy and Minerals. Since the life of the mine and permit term are the same in this case, OSM's recommendation for the mine plan will also automatically indicate an approval, disapproval, or conditional approval of the permit application, in accordance with 30 CFR 741.21 (a)(1).

OSM Alternative Actions

Proposed Action-Concurrence with the state documents, conclusions, stipulations, and recommendation of approval of the mining plan.

Alternative No. 1 - Recommendation of approval of the mining plan with stipulations over and above the state documents, conclusions, and stipulations. (The OSM Western Technical Center Staff has reviewed the mining plan application and has determined that no additional stipulations are necessary.)

Alternative No. 2 - Recommendation of disapproval of the mining plan.

Description of the Affected Environment and Applicant's Proposal

Land Features

The proposed mining operation will be located in Crandall Canyon which underlies steeply rising ridges on the eastern flank of the Wasatch Plateau. Crandall Canyon is a west bank tributary of Huntington Creek, one of the major drainages of the Wasatch Plateau, Utah. Elevations in the area range from 7,500 feet in the canyon bottoms to over 10,000 feet on the ridges and plateaus. The canyon is rugged and steep-sided with slopes that are convex and medium in length.

Soils

The area of disturbance is found at an elevation of approximately 7,500-8,000 feet on a southern exposure with slopes ranging from 5-70 percent. The soils have formed from the weathering of sandstone and shale, and are classified as Entisols and Mollisols. The Entisols are shallow and found on the steeper slopes and have a high erosion hazard. The Entisols are classified as poor for the recoverability of topsoil due to the steepness of slope (50-70 percent) and the high percent of large rocks on and in the surface layer (35 to 60 percent). Recovery of topsoil from these areas would be difficult if not impossible. The Mollisols are found on more moderate slopes. They are deep, well drained soils with A horizon ranging from 8-32 inches thick and have an erosion hazard that is moderate to low. These soils in general can produce large amounts of topsoil and subsoil that can be removed, stockpiled and used as a good plant growth medium for reclamation.

Surface facilities for the operation will disturb 9.7 acres. The applicant has proposed a topsoil salvaging and storage plan on those areas with suitable soil. The topsoil is to be replaced on the recontoured site during the final reclamation and abandonment stage of the operation. Appropriate soil amendments would be made to help insure successful revegetation.

Vegetation

Five plant community types will be disturbed by mining activities. These are: mountain shrub/grassland; mixed mountain shrub/conifer/aspen; spruce/fir/aspen/ riparian and, an area impacted by previous coal mining (previously disturbed area). A total of 9.7 acres will be disturbed within the permit area of 83.65 acres. Since the road will be left after mining (USFS request), only 8.5 acres will be reclaimed. Baseline data on cover, and shrub and tree densities were collected in all plant community types.

The applicant has submitted a complete revegetation plan, including soil preparation, species lists and seeding rates, methods of planting and mulching techniques. The species lists contain species that are native to the area, with one or two introduced species included that have proven value to prevent erosion, and which are not highly competitive with the native species. A standard of 1,336 shrubs per acre, as determined by sampling, has been set. Ground cover in the reference area was found to be 24 percent. A separate seed mix has been proposed for slopes of 30 percent or less. Trees will be planted in this area as well. Disturbance in this area will affect the forested communities: riparian; spruce/fir/aspen; and the previously disturbed community, which was most likely forested prior to disturbance. Accordingly, revegetation standards for this area have been set as follows: ground cover, productivity figures and shrub density standards from the reference area will be used. Tree density standards will be 550 trees per acre, as recommended by the U.S. Forest Service.

Hydrology

The Crandall Canyon Mine site is situated within the narrow confines of Crandall Canyon, a 6.1 mile long southwest trending tributary of the extensive Huntington Creek drainage (Wasatch Plateau region, central Utah). Crandall Creek located at the southern boundary of the permit area, is a small perennial stream which flows in a northeasterly direction and enters into Huntington Creek 1.5 miles downstream from the minesite.

The background water quality of Crandall Creek is very good and can be classified as a calcium-magnesium-bicarbonate (Ca Mg HCO_3) type. Total dissolved solids values range between 250-300 milligrams/liter (USGS water records for Crandall Creek gaging station).

Stream flow varies seasonally attaining peak discharge during the spring snowmelt period and a low during the late fall and winter months. Typically, annual flow may range between 0.5 cfs to over 50 cfs.

The perennial base flow of the stream is attributable to springs which discharge to the stream channel predominately in the upper reaches of the Crandall Creek drainage. The significant springs are located upstream from the mine location.

Springs throughout the area appear to be surfacing primarily above and below the Blackhawk Formation. Most significant springs usually discharge from the North Horn, Castle Gate or the Blackhawk/Star Point (interphase boundary) formations. Field observations in mines located in the San Rafael and Price River Basins have shown only limited amounts of subsurface water in the Blackhawk Formation.

The U.S. Geological Survey has published an open-file report (#81-539) which describes the hydrology of the coal resource areas of the upper Huntington Creek and Cottonwood drainages. Much of the information and conclusions of this report may be applicable to the Crandall Canyon Drainage area.

The report identifies snowmelt as the major source of ground water recharge for the region. Much of this recharge is discharged from springs which issue from water-bearing zones above the Star Point/Blackhawk (interface) aquifer close to the original recharge areas.

Regionally, there are significant springs which discharge from the Blackhawk Formation. These springs are usually associated with major fault patterns. Ground water can move readily through fractures in faulted areas. Several underground mines in the area which are associated with significant fractures or fault systems have intercepted substantial inflows of ground water.

The proposed Crandall Canyon Mine site appears to have a limited recharge area. The site is somewhat isolated from one of the more extensive local recharge areas identified as East Mountain. The Crandall Canyon Mine is located northeast of East Mountain.

Surface recharge to the geologic formations in the mine plan area is also limited by the local dissection on the north, south and east by the respective Blind Canyon, Crandall Canyon and Huntington Canyon drainages. The narrow topped ridge and steep slopes of the canyon drainages tend to limit the amount of direct recharge to the formations.

There are no stream channel diversions planned for this mining project other than one 42-inch culvert in an ephemeral drainage on the minesite. However, the applicant has proposed to provide channel embankment armoring (riprap) for those embankment sections along Crandall Creek where cut and fill slopes may encroach upon the stream channel.

The U.S. Forest Service (USFS) has required that the applicant provide adequate armoring on all stream embankment slopes where necessary to ensure that the 100-year, 24-hour runoff event is safely handled in a nonerosive manner.

Drainage from the disturbed area at the minesite will be directed into a sedimentation pond. The pond is to be constructed just above and adjacent to the Crandall Creek drainage, at the lower southeastern end of the minesite area. The pond is designed to handle the runoff volume for the 10-year, 24-hour precipitation event (2.4 inches, NOAA Atlas). The volume of runoff from the 8.36 acre-feet. The three-year sediment yield was estimated to be approximately 478 tons, 13,000 cubic feet or 0.30 acre-feet.

Discharges from the minesite will be in compliance with all applicable State and Federal water quality standards for effluent limitations. A NPDES discharge permit will be obtained to cover discharges from the sedimentation pond and for any unpredicted ground water inflows which may result in a discharge from the mine. Interception of ground water is not projected by the applicant and hence, no discharges are expected to occur from the mine. Any unpredicted ground-water inflow which might occur during mining operations will be pumped to a settling basin in a section of the old workings. The water will be treated for removal of oil and grease and will not be discharged from the mine until it meets effluent limitations.

No toxic-forming or acid-forming material which would degrade surface and groundwater quality are anticipated.

Fish and Wildlife

Crandall Canyon, by the nature of its steep, rugged topography, and its being a major drainage of the Wasatch Plateau, supports many species of vertebrate wildlife, including species of high interest to Federal and State Agencies. Both ruffed grouse and blue grouse brood and nest in the area of the proposed mine. Black bear, cougar, elk, mule deer and moose are important big game species which inhabit the Crandall Canyon area. Mule deer and elk winter on the high ledges and ridges of the canyon. It is likely that some animals pass through Crandall Canyon to their winter habitat. The mine access road may serve to disrupt big game movements. The applicant feels that the chance of a wildlife-coal truck collision is minimal, given the width of the road and a designated speed of 10 mph (Response to ACR Review, September 1981, page 34). Moose winter in all of the Huntington Canyon drainages, and winter mining activities will impact moose use of the lower 2 km of Crandall Canyon (MRP, Chapter IX, page 52). Crandall Creek, a perennial stream, has been determined not to be a fishery, however, it flows into Huntington Creek, a high quality trout stream.

Threatened or Endangered Species

It is possible that the bald eagle or peregrine falcon could use the area, but only on a transitory basis. A golden eagle nest has been located outside of the permit area, approximately 0.8 km to the northeast and above the old (existing) mine portals. In 1980, this nest fledged one young. Its exact status in 1981 and 1982 is not known. The U.S. Fish & Wildlife Service (USFWS) feels that human disturbance may have caused the eagles to forego or abandon a nesting attempt in 1981.

ANALYSIS OF ENVIRONMENTAL CONSEQUENCES
OF THE ALTERNATIVES

Proposed Action

The approval of the Genwal Coal Company's Crandall Canyon Mine, 5-year permit and 5-year life of mine would not significantly affect the quality of the human environment. The State of Utah's proposed stipulations would mitigate several environmental impacts and the mitigation measures that they require are adhered to by the applicant. The environmental impacts identified in the State's TA are presented in the following discussion.

The applicant predicts that little or no subsidence will occur as a result of mining. Crandall Creek will not be affected because mining will proceed away from the Creek. Springs and seeps in the area may be affected if subsidence does occur. The land use, livestock grazing and wildlife would not be adversely affected should limited subsidence occur.

Soils identified as suitable plant growth material will be salvaged from areas not previously disturbed. After the vegetation is removed, and prior to removal and stockpiling of those soils, a serious erosional problem could occur. The applicant could minimize this hazard by using sound engineering and environmental techniques. After reclamation, there will be an increase in soil erosion until revegetation is completed.

The applicant has submitted a complete revegetation plan including soil preparation, species lists and seeding rates, methods of planting and mulching techniques. The species lists contain species that are native to the area, with the exception of one or two introduced species to be used to help control erosion. The State has asked for additional information, such as a detailed plan for monitoring revegetated areas, and for transects of second year growth for emergence and survival of shrubs, with the above added information, the applicants proposal will properly revegetate the disturbed area when reclamation is complete.

Crandall Creek is the only perennial stream that will be affected by mining activities. One ephemeral drainage will be culverted to bypass the disturbed areas. Due to the limited disturbance (8.7 acres), the surface water quantity would only slightly decrease due to passing all the water from the disturbed area through a sedimentation pond. The 8.7 acres disturbed is a very small portion of the total watershed area.

Significant impacts to the surface water quality may occur due to increased erosion in areas of cut and fill, if the applicant does not comply with the special stipulations for control of erosion. The applicant has been given a variance to the 100 foot buffer zone requirement for the protection of Crandall Canyon because of the limited space in the Canyon for the access-haulroad and other surface facilities.

FINDING OF NO SIGNIFICANT IMPACT
DECISION NOTICE

MODIFICATION
FEDERAL COAL LEASE SL-062648
EMERY COUNTY, UTAH
MANTI-LASAL NATIONAL FOREST

On November 5, 1980, Genwal Coal Company filed a request with the BLM to modify Federal coal lease SL-062648. The subject leases are located in the Manti-LaSal National Forest, Price Ranger District, Price, Utah.

Genwal Coal Company controls Federal coal lease SL-050655 located in Valentines Gulch which is approximately 10 miles north of Genwal's Federal coal lease SL-062648 in Crandall Canyon. Genwal proposed to trade SL-050655 containing 80 acres in T. 14 S., R. 6 E., Sec. 13 for lot 1 located in Sec. 6 and lot 4 located in Sec. 5, T. 16 S., R. 7 E., on the north boundary of their Crandall Canyon lease SL-062648. The combined lots contain 75.23 acres. The proposed modification is less than 160 acres and is submitted pursuant to 43 CFR 3432.0-3.

A Forest Service Interdisciplinary Team has evaluated the proposed action and an environmental assessment (EA) has been prepared. Copies of the environmental assessment and other pertinent documents are on file and available for review at the following locations:

Manti-LaSal National Forest
Forest Supervisor's Office
599 West Price River Drive
Price, Utah 84501

Manti-LaSal National Forest
Price Ranger District
10 North Carbon Avenue
Price, Utah 84501

Two alternatives were considered by the ID Team: no action (which would allow coal mining on SL-050655 and isolation and ultimate "loss" of the resource on the modification acreage) and the proposed action.

With due consideration for the issues and concerns and other facts addressed in the EA, it has been determined to recommend the lease modification providing that lease SL-050655 is relinquished. The modification is subject to the management requirements (Standard Coal Lease Stipulations) found in Appendix C of the EA.

Pursuant to the National Environmental Policy Act of 1969, a determination has been made, through the environmental assessment process, that the proposed action will not create any significant impacts to the human environment. An Environmental Impact Statement will, therefore, not be required. This determination was based on

consideration of a number of factors that are discussed in greater detail in the environmental assessment. The primary considerations are as follows:

1. The proposed lease modification will not be a major Federal action.

2. The proposed action can be implemented within the management guidelines and directives specified in the Manti-LaSal National Forest, Ferron-Price Land Management Plan.

3. The Interdisciplinary Team did not identify any concerns for archeological nor paleontological values; prime farm, range, or timber lands; threatened or endangered animals and plants, floodplains or wetlands; alluvial valley floors; nor RARE II further study areas within the project area.

Implementation of this action may take place immediately upon approval.

This decision is subject to administrative review (appeal) pursuant to 36 CFR 211.19.

Responsible Official:

/s/ T.A. Roederer

J. S. TIXIER

Regional Forester

4/22/83

Date

ENVIRONMENTAL ASSESSMENT
MODIFICATION OF FEDERAL COAL LEASE SL-062648
GENWAL COAL COMPANY, INC.
EMERY COUNTY, UTAH

Lead Agency: USDA, Forest Service
Manti-LaSal National Forest
599 West Price River Drive
Price, Utah 84501

Responsible Official: Regional Forester
Intermountain Region
324 25th Street
Ogden, Utah 84401

For Further Information Contact: District Ranger
Price Ranger District
Manti-LaSal National Forest
10 North Carbon Avenue
Price, Utah 84501

Preparation: Bruce Jessen, Geologist

Recommend Approval:

Don W. Hatch
District Ranger

Date:

3/3/83

Approved:

Paul C. Chumteer
Forest Supervisor

Date:

3/9/83

I. INTRODUCTION

A. Purpose Or Need For Action

Genwal Coal Company has filed an application for modification of their Federal Coal Lease SL-062648. The BLM formally notified the Forest Service of this pending lease modification application by correspondence dated July 30, 1981 (see appendix A). Genwal is requesting the modification to permit mining of the coal reserves within the proposed modification area in conjunction with proposed mine development in their adjacent Federal Coal Lease SL-062648 (see figures 1 and 2).

The modification is contingent upon voluntary relinquishment of Genwal's lease SL-050655 in Valentines Gulch, T14S, R6E, Sec 13, NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, SLM, containing 80 acres. The exchange is recommended by the Forest Service, BLM, USGS and Genwal due to the Valentines Gulch lease being in a highly scenic area and compounded by the fact that access is a major problem. The general consensus is that the modification would lessen impacts to the resources and provide for the needs of the company. (see figures 1, 2, 3 and Appendix B).

Since lease SL-062648 is located entirely within the Manti-LaSal National Forest, Forest Service concurrence is required prior to approval of the proposed modification by BLM. This Environmental Assessment will determine concurrence or disapproval and establish Forest Service recommendations and constraints to be included as stipulations in the lease modification.

1. Authorizing Actions

The proposed lease modification will be under the authority of the following authorizing actions: The Mineral Leasing Act of February 25, 1920, as amended; the Federal Land policy and Management Act (FLPMA) of 1976; the Surface Mining Control and Reclamation Act (SMCRA) of 1977; the Multiple Minerals Development Act of August 13, 1954; the Department of Energy Organization Act of August 4, 1977; the National Environmental Policy Act (NEPA) of 1969; the Federal Coal Leasing Amendments Act of 1976, as amended; the Act of October 30, 1978 that further amended the Mineral Leasing Act of 1920; and regulations: Title 43 CFR Subpart 1821 & 3041, Part 3400, Part 2800 and Title 30 Part 211, Part 700; the Ferron-Price Land Management Plan and EIS of May 1979.

2. Relationship to Land-Use Planning and Unsuitability Criteria

The lease modification area is located within Management Unit A-3 the Huntington Canyon Unit, of the Ferron-Price Land Management Planning Unit. Management decisions and guidelines for this unit and for all the "coal lands" are specified in the "Land Management Plan, Ferron-Price Planning Unit, Manti-LaSal National Forest". Development of the modification is compatible with all pertinent management guidelines specified for Management Unit A-3, and for the "coal lands" in general. Any future surface disturbing activities will be controlled to accommodate various management guidelines.

As required by the Surface Mining Control and Reclamation Act of 1977 and subsequent regulations, the Federal Lands Unsuitability Criteria were applied to Area "A" (the "coal lands") of the Ferron-Price Planning Unit as a part of the Environmental Statement and Land Management planning process. A review of the Unsuitability Criteria and their application to the Ferron-Price Planning Unit indicates that none apply to the subject lease modification.

B. Issues, Concerns, Opportunities

The ID Team listed on page 10 has reviewed and discussed the alternatives and their effects on the environment. Based on their knowledge of the proposed action the following issues, concerns and opportunities have been identified.

1. Hydrology and Water Quality

Subsidence can occur due to undermining which could impact groundwater and surface water occurrence and quality.

2. Escarpment Failure

This can occur if a sufficient amount of coal is not retained on the escarpment faces or as a result of subsidence.

3. Opportunities

- a. There is an opportunity to mine coal which otherwise may be uneconomical to mining.
- b. There is an opportunity to terminate lease SL-050655 (Valentines Gulch) via Genwal's relinquishment. That lease is in a highly scenic area and would entail significant impacts upon resource values for developments. (See figures 1 & 3).

C. Negative Declaration

The ID Team did not identify any archeologic or paleontologic values; prime farm, range or timber lands; threatened or endangered animals and plants; floodplains or wetlands; alluvial valley floors; or RARE II further study areas within the project area. An archeological survey has been conducted, and threatened and endangered plant and animal reports are available in the Price Ranger District Office.

D. History, Background or Other Information

Surface developments near the proposed lease modification and future coal mining operations are covered in the Genwal Coal and Bridge, and Genwal Mine Plan Environmental Assessments. (See page 11 list of references). Mineable coal is present in the existing coal lease in both the Hiawatha and Blind Canyon seams. The Hiawatha Seam is 6.0 feet thick. Approximately

840,000 tons of coal is in place with 420,000 tons recoverable. Thirty five thousand tons were removed in the 1950's (about 2 acres). The lease modification area should contain the identical seams.

Development of the proposed lease modification can be conducted entirely from underground. No breakouts or surface facilities of any type should be required. Room and pillar mining techniques would be utilized. The lease modification tract would be mined by an extension of Genwal's proposed mining operations.

Presumably, the coal would be mined at the same rate of production and with the same work force requirements as the proposed mining operation. These are discussed in detail by Genwal's mining and reclamation plan.

II. ALTERNATIVES

A. Alternative One - No Action

Consideration of the "No Action" alternative is required and by section 1502.14(d) of the National Environmental Policy Act of 1969 (NEPA) and by CEQ guidelines as listed in the Federal Register November 29, 1979. The "No Action" alternative in this case, would be denial of the lease modification requested by Genwal Coal Company. This is the only viable alternative to the proposed action. Under the "No Action" alternative, the subject lease modification would not be granted. Mining would continue as previously planned in lease SL-062648. Once this development is completed, mining would retreat from this area, isolating the coal reserves in the proposed lease modification. As a result, these reserves would not be mined and no rental fees or royalties would be returned to the government. Lease SL-050655 (Valentines Gulch) located in a highly scenic area with access and other coordination problems may then be developed and mined. This development would be extremely undesirable from an environmental standpoint.

B. Alternative Two - Proposed Action

1. Description

The proposed action is modification of Federal Coal Lease SL-062648 as described in Genwal's application filed with BLM. Their mine plan for this lease has been approved. The proposed modification would add the adjacent northerly 75.23 acres area to lease SL-062648 (See appendix A).

Federal Coal Lease SL-062648 is located on the northern side of Crandall Canyon approximately $1\frac{1}{2}$ miles west of State Hwy 31. Crandall Canyon is 15 miles north west of Huntington in Emery County, Utah. Both properties are federally-owned lands managed by the Manti-LaSal National Forest, Price Ranger District. Legal descriptions of the area being discussed are as follows:

Crandall Canyon: Coal Lease SL-062648, SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 5; SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 6, T16S,R7E, SLM, Utah Totaling 80 acres

Crandall Canyon: Proposed Lease Modification: Sec. 5, Lot 4;
Sec. 6, Lot 1
T16S,R7E, SLM, Utah
Totaling 75.23 acres

Valentines Gulch: Coal Lease SL-050655, T14S,R6E Sec. 13, SLM, Utah
SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$
Totaling 80 acres

Figure 1 shows the general location of Coal Lease SL-062648 and SL-050655.
Figure 2 shows detailed location of the proposed lease modification.
Figure 3 shows detailed location of Coal Lease SL-050655, Valentines Gulch, (to be relinquished).

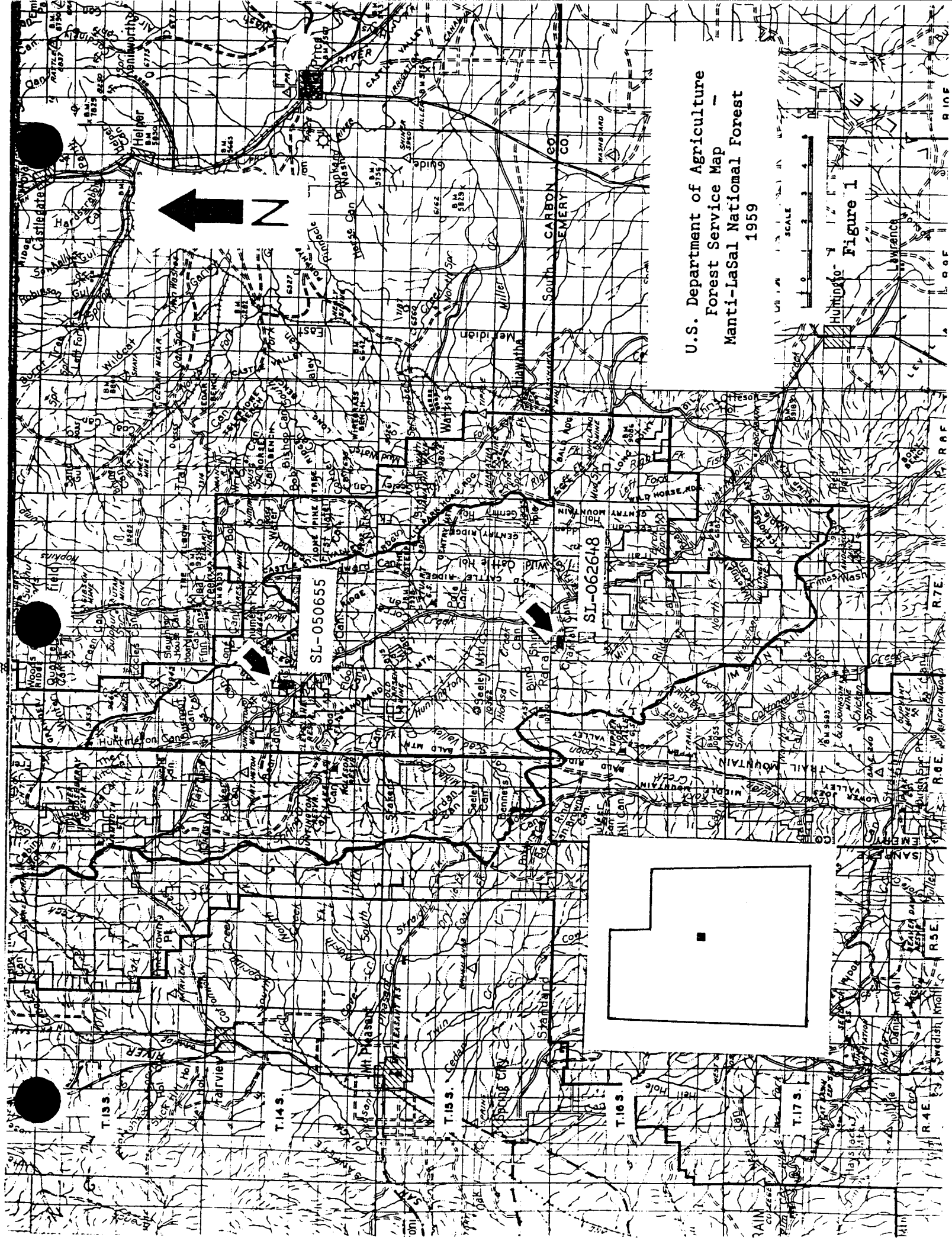
The mine workings under development on Lease SL-062648 provide the best feasible means of access to the tract. The entire south boundary of the proposed lease modification is adjacent to lease SL-062648. Both known coal seams would be accessible with a rock slope entry if not mined from the existing lease. This would entail surface access to the proposed modification tract which could only be achieved by building access roads and surface facilities on the steep slopes and cliffs present on the north side of Crandall Canyon. The relatively small quantity of mineable reserves present within the proposed lease modification could not justify the economic and environmental costs associated with these developments.

2. Management Requirements, Constraints and Mitigations

The standard surface protection coal lease stipulations will be applicable to the lease modification. (See appendix C).

III. DESCRIPTION OF EXISTING ENVIRONMENT-AFFECTED ENVIRONMENT

Environmental factors-resource elements discussed in this section are those that were identified during the ID Team review. The affected environment is generally described in the "Final Environmental Statement: Development of Coal Resources in Central Utah"; the "Final Environmental Statement: Ferron-Price Planning Unit, Manti-LaSal National Forest"; and the "Land Management Plan, Ferron-Price Planning Unit, Manti-LaSal National Forest". The existing regime is fully described in the aforementioned environmental assessments involving Genwal Coal Company mine plan in Crandall Canyon; the Valentines Gulch, 1980, Lease SL-050655 readjustment EA; and the Beaver Creek Coal Company ($\frac{1}{2}$ mile east & south), 1981 Emergency Coal Lease U-48492, EA.



U.S. Department of Agriculture
Forest Service Map
Manti-LaSal National Forest
1959

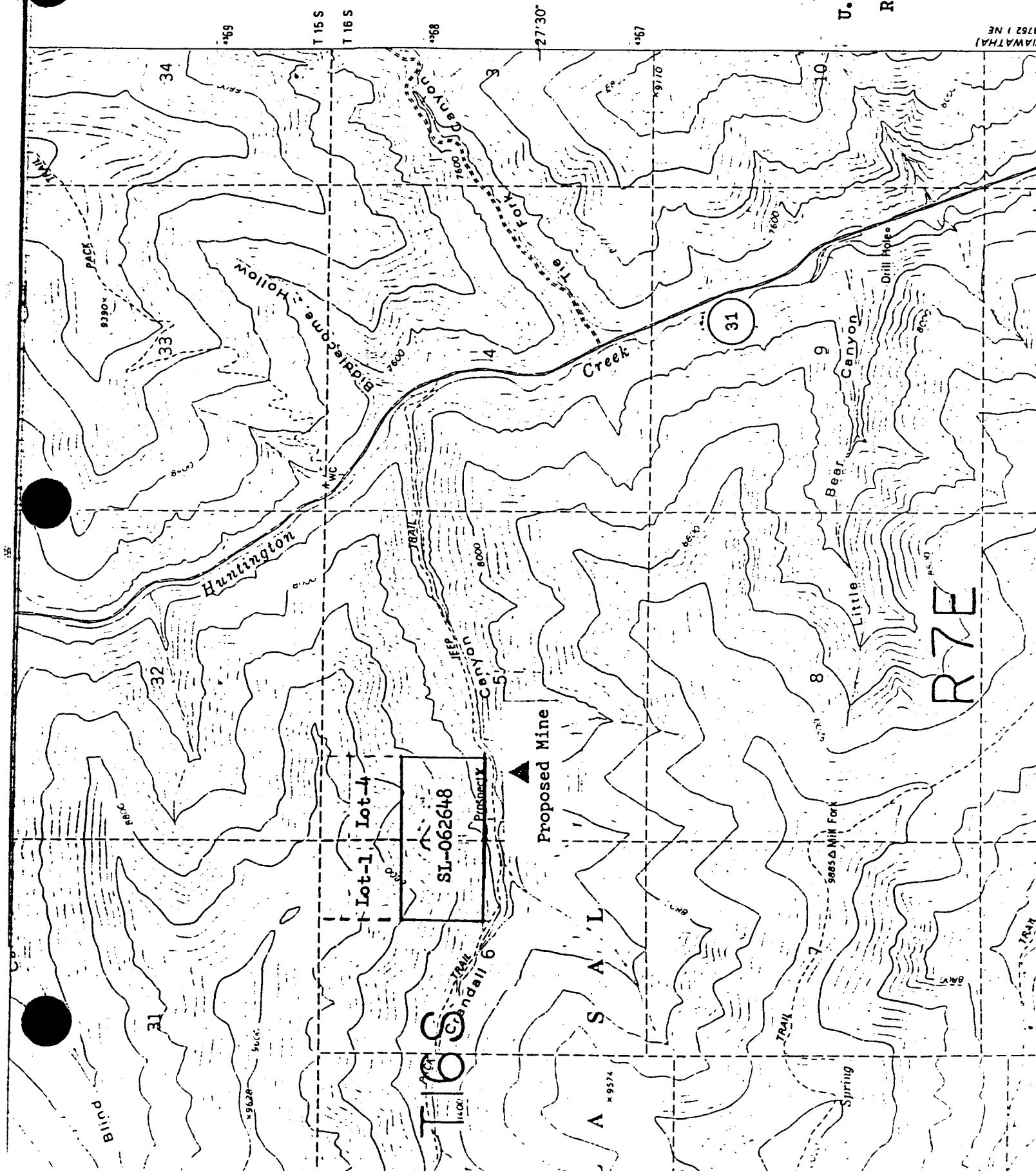
SCALE
0 1 2 3 4
1/4 1/2 3/4 1
1 1 1/4 1 1/2 1 3/4 2
MILES

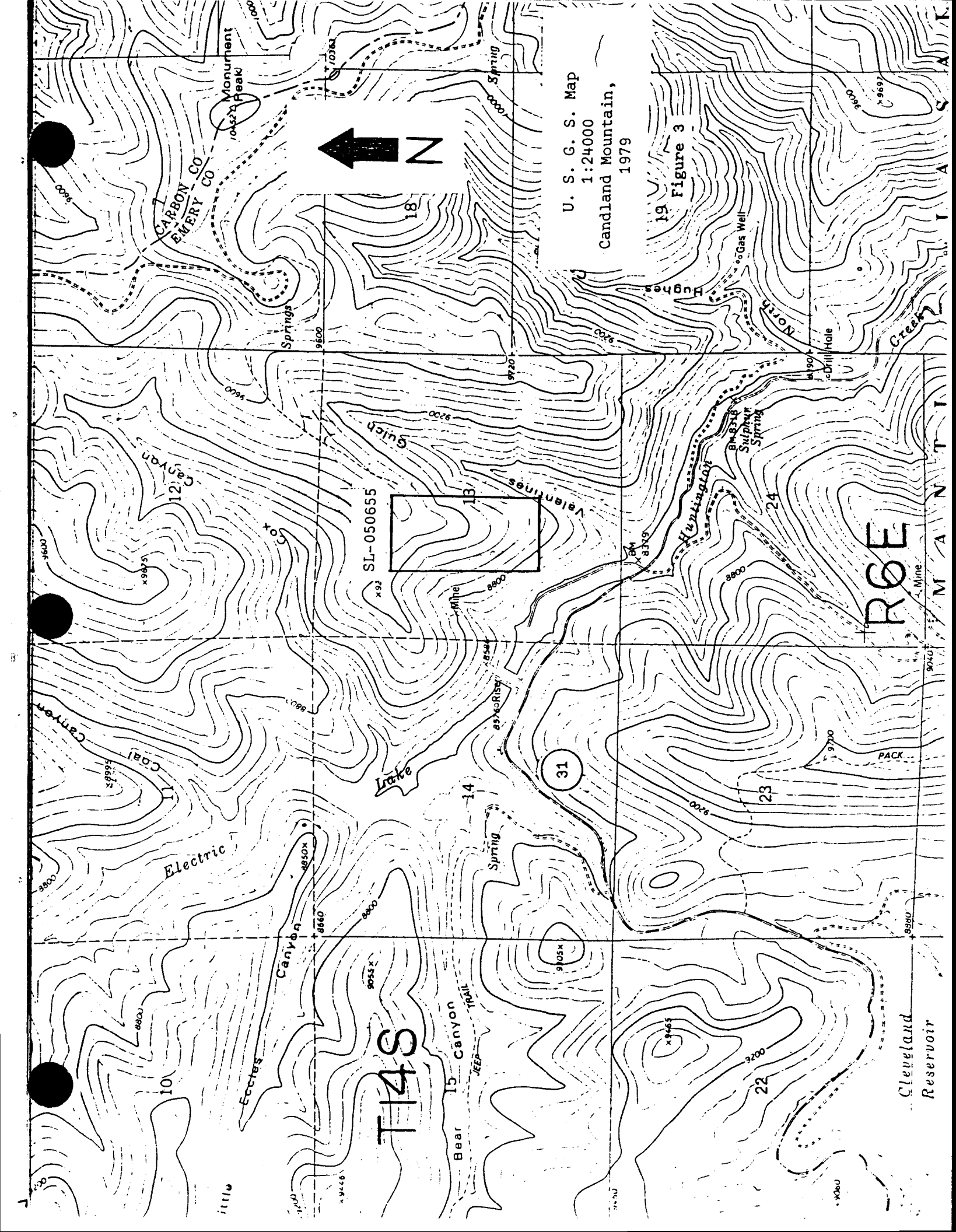
Humbug Figure 1



U. S. G. S. Map
1:24000
Rilda Canyon
1979

Figure 2





U. S. G. S. Map
1:24000
Candland Mountain,
1979

Figure 3

SL-050655

T14S

R0E

A. Hydrology and Water Resources

The lease modification is within the Crandall Creek and Huntington Canyon drainages. Groundwater in the area of the lease modification is generally of good quality.

IV. ENVIRONMENTAL CONSEQUENCES-ENVIRONMENTAL IMPACTS

A. Alternative One - No Action

Under the "No Action" alternative mining would still occur on the original 80 acres area of lease SL-062648 as proposed by Genwal Coal Company. A number of mining related impacts would occur, however, they would not be extended to include the proposed lease modification area. These impacts are discussed in the following section of this report. Impacts to the various resources could occur if development of lease SL-050655 were to take place.

B. Alternative Two - Proposed Action

1. Short-Term and Residual Impacts

Subsidence could create some impacts to surface resources on the lease modification area. At the present time, these impacts cannot be accurately predicted; however, several general types of impacts may be expected. Changes in the ground water system caused by subsidence could affect surface water occurrence and yield. Any resultant changes in water distribution could affect vegetative growth and/or wildlife use. Topographic surface expressions of subsidence, such as depressions, slope failures, tension cracks, etc., can also be expected.

Appropriate mitigation measures applied to developments can reduce the significance of most of these impacts. Although most of the impacts would not be permanent, they would exist through the duration of the mining operation.

2. Short-term and Long-term Productivity

Development of the proposed lease modification would return rental fees and production royalties to the United States at the rates applicable to lease SL-062648.

Most of the major long-term effects would result from associated developments, such as portals, conveyor systems, power plants, etc., which are not proposed for this lease modification.

The proposed action over the long-term would result in consumption of a non-renewable resource and will deny its use for future generations.

With the acquisition and development of the additional acreage the projected mine life of 5 years or the annual production rate of 132,000 tons as described in the approved mine plan would require change. Essentially the mine life or the production rate would approximately double. In the case of the former, the impacts would remain essentially the same only cover a 10 year or longer period. In the case of the latter, production and coal haul facilities would require upgrading to sustain the 250,000 tons/year plus production rate over 5 years, which could yield additional environmental impacts. Either case would require the filing of a mine plan modification that would be subject to review and approval.

Long-term biologic productivity based on pre-existing yield of ground water aquifers may be reduced if aquifers are contaminated due to mining operations. Where yield of an aquifer is reduced, reduction of dependent productivity will be permanent. Disruption of an aquifer by underground mining or subsidence may permanently affect water availability.

3. Irreversible and Irretrievable Commitments

Approval of the lease modification would irreversibly and/or irretrievably commit the coal resources of the subject lands. All other resources for this area would remain uncommitted.

Extraction of coal and associated developments would require a commitment of liquid fossil fuel, electric power, lubricants, explosives, manpower, machinery, structural materials, etc. These materials and efforts will be irretrievably lost to other uses.

Those aquifers that would be physically disturbed during mining or subsidence could be irreversibly changed. The chemical quality of water in some aquifers could be irreversibly changed.

V. PERSONNEL AND PUBLIC INVOLVEMENT

A. Forest Service ID Team

The following Forest Service ID Team convened November 2 and 3, 1981 to identify and discuss the issues and concerns, anticipated effects, possible alternatives and mitigating measures associated with this project.

Brent Barney	Engineer, SO
Dennis Kelly	Hydrologist, SO
Steven Spencer	Range Conservationist, D-3
Bruce Jessen	Geologist, D-3

Consultant with Others

Ira Hatch	District Ranger, D-3
Dan Larsen	Soils, SO
Jim Jensen	Visual and Recreation, SO
Dwain McGarry	Geologist, D-3
Carol Morrison	Wildlife, D-3
Walt Nowak	District Geologist, D-3
Gary Say	Forester, D-3

VI. LIST OF APPENDICES

- A. Letter dated July 30, 1981, from BLM to the Forest Service.
- B. Letter dated June 17, 1981, from the Forest Service to BLM.
- C. Standard Coal Lease Stipulations.

REFERENCES

1. Apparent Completeness Review, 3 volumes, 1981, Crandall Canyon Coal Mine, Genwal Coal Company.
2. Environmental Assessment, 1981, "Beaver Creek Coal Company Emergency Coal Lease".
3. Environmental Assessment, 1981, "Crandall Canyon Road and Bridge".
4. Environmental Assessment, 1982, "Crandall Canyon Mine".
5. Environmental Assessment, 1981, "Valentines Gulch Lease Readjustment".
6. Genwal Coal Company, 1981, Permit Application and Mine Plan, Vol. 1, Crandall Canyon Coal Mine.
7. USDA, Forest Service 1979, "Land Management Plan Ferron-Price Planning Unit, Manti-LaSal National Forest.
8. _____, 1979, "Final Environmental Statement: Ferron-Price Planning Unit, Manti-LaSal National Forest".
9. USDI, US Geological Survey, 1979, "Final Environmental Statement: Development of Coal Resources in Central Utah".
10. USDA, Forest Service, 1983, "Environmental Assessment, Readjustment of Federal Coal Lease SL-062648.

Intermountain
Region

324 25th Street
Ogden, UT 84401

2820

JAN 17 1986

Mr. Roland G. Robison, Jr.
Utah State Director
Bureau of Land Management
Consolidated Financial Center
324 South State Street
Salt Lake City, UT 84111

Dear Roland:

We consent to the issuance of Emergency Coal Lease U-54762 under Alternative 2, as discussed in the enclosed Environmental Assessment (EA), Finding of No Significant Impact (FONSI), and Decision Notice. Please include Special Stipulations 1-17, as outlined in the EA.

Sincerely,
J. A. Roederer

for
J. S. FIXIER
Regional Forester

Enclosures

✓cc:
Manti-LaSal NF

APPROVED
MANITOU-LASAL N.F.
JAN 23 1986
WEB
✓
Sam St

cc: D-3

ENVIRONMENTAL ASSESSMENT
EMERGENCY COAL LEASE APPLICATION, U-54762
GENWAL COAL COMPANY
EMERY COUNTY, UTAH

RESPONSIBLE OFFICIAL: STAN TIXIER
REGIONAL FORESTER
INTERMOUNTAIN REGION (R-4)
USDA, FOREST SERVICE
324 25TH STREET
OGDEN, UTAH 84401

FOR FURTHER INFORMATION CONTACT: IRA W. HATCH
DISTRICT RANGER
PRICE RANGER DISTRICT
MANTI-LASAL NATIONAL FOREST
599 WEST PRICE RIVER DRIVE, SUITE #4
PRICE, UTAH 84501

APPROVAL:

Leed C. Christensen
FOREST SUPERVISOR

12/24/85
DATE

I. INTRODUCTION

A. Purpose and Need for Action

Genwal Coal Company has applied for an emergency coal lease on Federal coal lands adjacent to their Crandall Canyon Mine. The application was submitted to BLM on July 18, 1984 by Genwal. The BLM assigned serial number U-54762 to the application and determined that the coal was required to maintain current production levels at the mine.

Since all of the subject lands are located within the Manti-LaSal National Forest, Forest Service consent is required prior to lease issuance by BLM. By letter dated September 27, 1984, the BLM has requested Forest Service consideration of the proposal and to prescribe as appropriate any terms or conditions necessary for the protection of non-mineral interest in the subject lands.

This environmental assessment will analyze the proposal and the environment in light of current land management planning policies to develop the necessary terms or conditions to be included in the lease stipulations. A Forest Service decision notice document will also be prepared on the basis of this environmental assessment that will specify whether or not the Forest Service consents to the lease issuance.

1. Authorizing Actions

Leasing and development will be under the authority of the following actions: The Mineral Leasing Act of February 25, 1920, as amended; the Federal Land Policy and Management Act (FLPMA) of 1976; the Surface Mining Control and Reclamation Act (SMCRA) of 1977; the Multiple Minerals Development Act of August 13, 1954; the Department of Energy Organization Act of August 4, 1977; the National Environmental Policy Act (NEPA) of 1969; the Federal Coal Leasing Amendments Act of 1976, as amended; the Act of October 30, 1978 that further amended the Mineral Leasing Act of 1920; regulations: Title 43 CFR Subpart 3041, Part 3400, Part 2800 and Title 30 Part 211, Part 700; the Ferron-Price Land Management Plan and EIS of May 1979.

Upon reissuance of the subject emergency lease, Genwal will be required to comply with all Federal, State and local laws, regulations and policies pertaining to the leasing and development of coal. A complete listing of Federal laws affecting coal leasing and development is presented in the "Final Environmental Statement: Federal Coal Management Program" (pp 1-15 through 1-23). This document is available for review at the Price Ranger District Office, 599 W. Price River Drive, Price, Utah.

2. Relationship to Planning and Unsuitability Criteria

The proposed emergency lease is located within Unit A-3, the Huntington Canyon Management Unit of the Ferron-Price Planning Unit. Management guidelines and decisions for this Unit and all the "Coal Lands" in general are specified in the "Land Management Plan: Ferron-Price Planning Unit, Manti-LaSal National Forest". Issuance of the proposed emergency lease will be compatible with the pertinent specific guidelines for Unit A-3 as well as the general decisions and guidelines for the "Coal Lands" and the entire Ferron-Price Planning Unit.

A number of generalized issues and concerns related to coal leasing exploration and development are addressed in the Ferron-Price Land Management Plan. Any future surface disturbing activities for exploration and development must be evaluated to determine their acceptability and/or to identify any management requirements necessary to insure compliance with the guidelines and decisions specified in the Land Management Plan.

As required by the Surface Mining Control and Reclamation Act of 1977 and subsequent regulations, the Federal Lands Unsuitability Criteria were applied to Area "A," the "Coal Lands", of the Ferron-Price Planning Unit as a part of the Environmental Statement and Land Management Planning process. A review of the unsuitability criteria and their application to the Ferron-Price Planning Unit indicates that none of the criteria are applicable to the subject area; therefore, it can be considered suitable for leasing and mining.

3. History, Background and Other Information

Genwal's current emergency application is the latest in a series of activities starting in 1980 with the original mining and road use applications. Since then, the terms of the original lease SL-062648 containing 77.53 acres were adjusted in 1983 and this lease was later modified to include an additional 83.64 acres for a total of 161.17 acres. Genwal has submitted a permit application package to OSM/DOGM this year to include the latter 83.64 acres (Tract 2) under their mining and reclamation plan.

Mining and related activities have been conducted within and adjacent to the Huntington Canyon drainage for many years with the earliest developments occurring in the late 1800's.

The most recent activity has been the abandonment and reclamation of the Huntington Canyon #4 mine property adjacent to the south of the Crandall Canyon workings.

The proposed emergency lease would be included in a portion of Federal Oil and Gas Lease U-15208. Oil and gas exploration activities have not occurred recently in this area; however, it is possible that such activities could take place at some future time. Issuance of the proposed emergency lease is not expected to affect oil and gas related activities.

B. Issues and Concerns

The Forest Service Interdisciplinary Team originally identified two new issues and concerns in a Project Scoping Document developed earlier this year for the proposed action (see Appendix A). One of these was the "inclusion of unmineable acreage that could adversely affect Forest Service management of the Huntington Canyon Watershed and Forest Development Road 50248 (the Crandall Canyon Road)." This unmineable acreage has been removed from the application (see Appendix B) since the Scoping Document was developed and so this is no longer an issue or concern.

The single issue and concern remaining is that the effects to the environment previously identified in the tiering documents would last for an additional length of time.

C. Negative Declaration

Issuance of Emergency Lease U-54762 will not affect any identified archeological or paleontological values; prime range, farm or Forest lands; wetlands or flood plains; alluvial valley floors; cultural or historical resources; or Threatened or Endangered plant and animal species. Future surface disturbing activities will be evaluated to identify any potential impacts to these values.

II. ALTERNATIVES

A. Alternative One - No Action

Consideration of the "No Action" alternative is required by Section 1502.14 (d) of the National Environmental Policy Act of 1969 (NEPA) and by CEQ Guidelines as specified in the Federal Register, November 28, 1978. The "No Action" alternative, in this case would be disapproval of Genwal's emergency lease

application. This would not allow the coal under application to be leased and Genwal would, presumably, continue development of the Crandall Canyon Mine according to their present plans.

B. Alternative Two - Proposed Action With Management Requirements

1. Description and Location

The proposed action is Genwal Coal Company's acquisition of additional coal lands by an emergency leasing action. The terms of the proposed Federal Coal Lease U-54762 would comply with current Forest Service land management requirements. Under this alternative the proposed coal would be leased, presumably to Genwal, and developed in the near future. Current mining operations to the south and west of the proposed lease area would be extended as mining advances. Current mine life would terminate in 2 to 2.5 years, but with the subject lease, it would triple to 6-7 years. Genwal's application as amended (see Appendix B) describes their proposal in greater detail.

Figure 1, shows the general geographic location of the project area. Figure 2, shows the area in greater detail.

2. Management Requirements

If issued, emergency lease U-54762 will contain the National Forest System Stipulation as well as the special coal lease surface protection stipulations to insure compliance with Forest Service management principles. A copy of these stipulations is attached as Appendix C.

III. DESCRIPTION OF EXISTING ENVIRONMENT-AFFECTED ENVIRONMENT

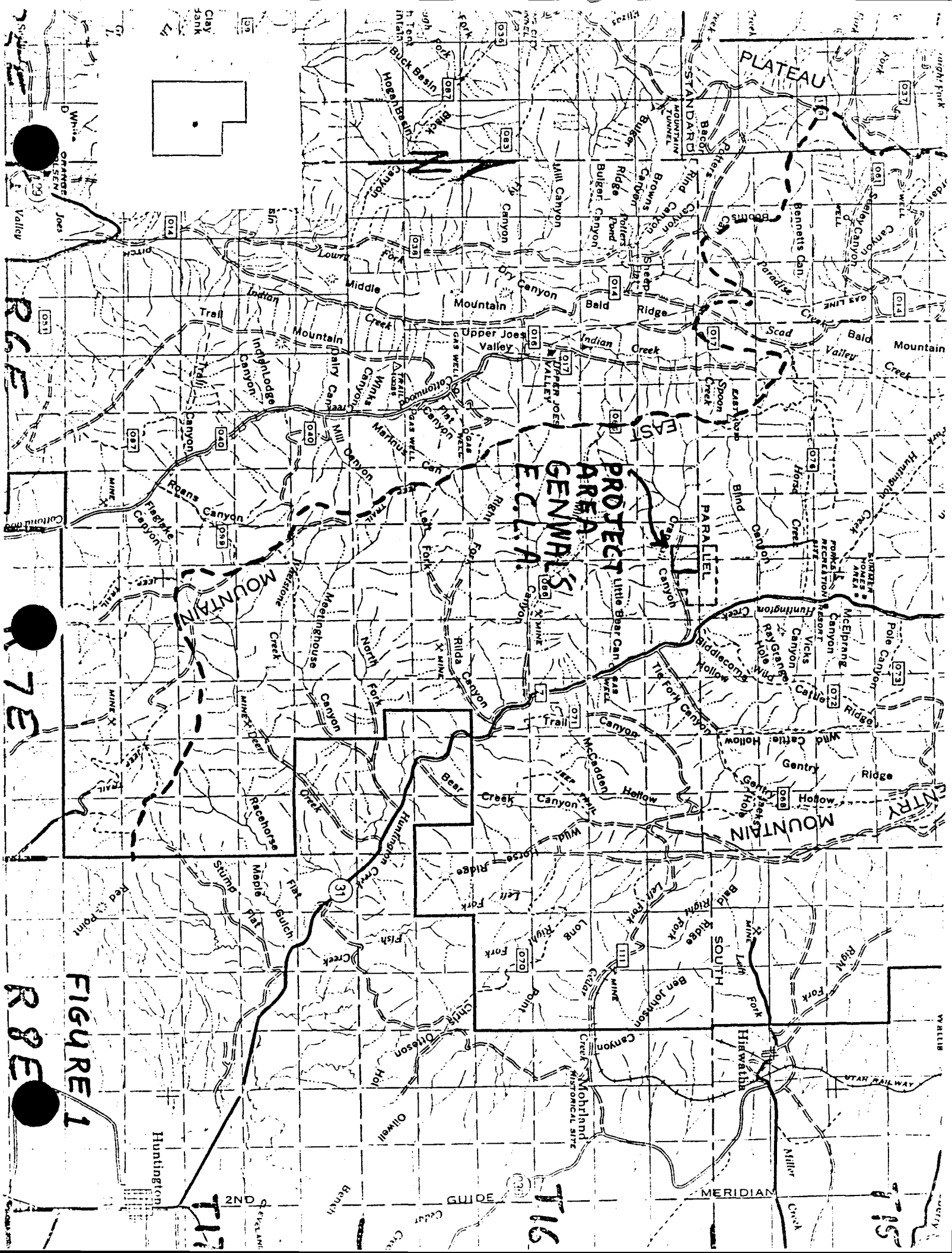
The existing environment of the subject area has been generally described in the "Final Environmental Statement: Ferron-Price Planning Unit, Manti-LaSal National Forest". Also, several site-specific environmental assessments covering related actions for this area fully describe the affected/existing environment. Please refer to Section V, Tiering Documents and Selected References.

IV. ENVIRONMENTAL CONSEQUENCES - ENVIRONMENTAL IMPACTS

A. Alternative One - No Action

1. Short-Term and Residual Impacts

Disapproval of the subject emergency lease application would not create any short-term or residual impacts to Forest



16 E
17 H

BM
7632

22
172

Horse Canyon

Canyon

PACK

TRAIL

Vicks Canyon

Canyon

Hole

Springs

Spring

TRAIL

30

29

28

27

3260

3000

3940

3900

3200

Canyon

Grange

Hole

Springs

Spring

TRAIL

Blind

31

32

33

34

3300

Huntington

Biddlecome Hollow

N

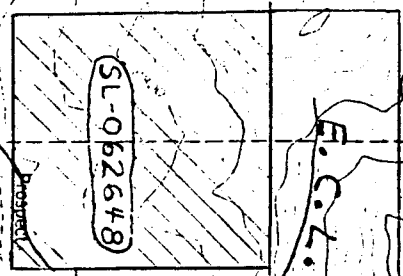
EMERGENCY COAL LEASE APPLICATION AREA-GENWAL



EXISTING LEASE
SL-062648 161.17 ac.



E.C.L.A. AREA - ALT. 2
U-54762
CUMULATIVE 250.46 ac.



Crandall 6

JEFF

HIWATHA

4

3

Canyon

ENCLOSURE 2

Tie

Fork

Canyon

27

resources. If the "No Action" alternative is implemented the emergency lease application would not be approved. Short-term results of this action would include a reduction of Genwal's anticipated reserve base for the Crandall Canyon Mine, and an indefinite delay or elimination of development of the coal reserves within the lease area. Genwal would be required to obtain other coal reserves in order to sustain production and meet contract commitments. Any rentals and production royalties that would accrue to the Federal government through development of the lease reserves would be temporarily or permanently lost. Any residual impacts that would have resulted from subsidence over the subject lease area would be avoided or delayed.

2. Short-Term and Long-Term Productivity

Under the "No Action" alternative coal would not be produced from the subject area over the short-term. It is possible that these reserves could be obtained through the normal leasing process if the emergency lease is denied; therefore, these reserves could eventually be developed and contribute to long-term energy production. Productivity of other resources on the subject area would be unaffected over the short-term. If the reserves are developed at some future time there could be some long-term impacts to productivity as a result of post-mining subsidence.

3. Irreversible and Retrievable Commitments

The "No Action" alternative does not necessarily create any irreversible or irretrievable resource commitments. If the proposed lease is not developed the coal reserves would be uncommitted; however, they would remain available for future development unless they become isolated by future mining. It could be obtained through the normal leasing process and be developed at some future time. Development of this coal would irreversible and irretrievably commit these resources to consumption. A portion of the reserves would also become unmineable because of current mining techniques that can not achieve full coal recovery. Any impacts to surface resources that result from subsidence, if the coal is mined, may be irreversible.

B. Alternative Two - Proposed Action With Management Requirements

1. Short-Term and Residual Impacts

The primary short-term impact resulting from the proposed action would be the development of the recoverable coal

reserves within the emergency lease area. Since this coal would probably be developed through Genwal's existing workings and facilities at the Crandall Canyon Mine, no additional short-term impacts will result from construction of portals or other facilities. Potential impacts to groundwater occurrence and distribution caused by mining or subsidence are effectively mitigated in the Forest Service lease stipulations. Alterations in the development and use of surface resources caused by changes in groundwater occurrence would probably be long-term effects. Potential impacts of surficial slope or escarpment failures caused by mining or subsidence would probably be short-term in nature. The failures themselves would remain over the long-term. Compliance with the special lease stipulations, which reflect Forest Service management principles (see Appendix C), will mitigate any potential impacts to the maximum extent feasible.

2. Short-Term and Long-Term Productivity

Approval and subsequent development of the proposed emergency lease could have some short-term and long-term effects on resource productivity. The productivity of surface resources could be affected by changes in groundwater supplies resulting from mining or subsidence. Any such effects on productivity would probably be long-term in nature. The proposed action will result in the development of the subject coal reserves over the short-term. This will contribute to the short-term production of energy and possibly, other coal products. No additional short-term impacts to the productivity of other resources will occur since this coal will be mined from existing facilities. Production of this coal over the short-term will eliminate it as a future source for energy production. This will slightly increase the long-term productivity of the Crandall Canyon Mine operation. There would also be an increase in Federal revenues from the lease bid and rental fees. Federal revenues from production royalties would be realized over the life of production.

3. Irreversible and Irretrievable Commitments

The proposed action will result in development of the coal reserves contained within the emergency lease area. Development of this coal will be an irreversible and irretrievable commitment of these reserves. Any coal rendered unmineable by development of the tract will be irretrievably lost. The use of other energy and material resources for coal mining will be an irreversible and

irretrievable commitment of those resources. If subsidence causes any impacts to surface or groundwater resources that affects existing yields, existing water commitments could be irreversible altered.

V. CONSULTATION AND COORDINATION

A. Forest Service Interdisciplinary Team

Ira Hatch	District Ranger, Price District
Leland Matheson	Range Conservationist, Price District
Walt Nowak	Geologist, Team Leader, Price District
Gary Say	Forester, Price District

B. Outside Contacts

Andy King	Mining Engineer, Genwal Coal Company
Brent Northrup	Geologist, Moab District, BLM

C. Public Involvement

A public meeting concerning Emergency Coal Lease Application U-54762 was held at Price Area Office, BLM on August 7, 1985. The meeting was advertised and comments were solicited by public notices in two local newspapers and in the Federal Register. No comments were received. Documents relating to the above are included in Appendix D.

D. Tiering Documents and Selected References

- (1) U.S.D.I., Geological Survey and Bureau of Land Management, 1975, "Final Environmental Statement: Surface Management of Federal Coal Resources and Coal Mining Operating Regulations".
- (2) U.S.D.I., Bureau of Land Management, 1979, "Final Environmental Statement: Federal Coal Management Program".
- (3) U.S.D.I., Geological Survey, 1979, "Final Environmental Statement: Development of Coal Resources in Central Utah".
- (4) U.S.D.A., Forest Service, 1979, "Land Management Plan and Environmental Impact Statement: Ferron-Price Planning Unit, Manti-LaSal National Forest".
- (5) U.S.D.I., Bureau of Land Management, 1985, "Draft Environmental Impact Statement Supplement: Federal Coal Management Program".

- (6) U.S.D.A., Forest Service, 1983, "Environmental Assessment: Modification of Federal Coal Lease SL-062648".
- (7) U.S.D.A., Forest Service, 1983, "Environmental Assessment: Readjustment of Federal Coal Lease SL-062648".
- (8) Genwal Coal Company, 1980, "Permit Application: Crandall Canyon Underground Coal Mine".
- (9) Genwal Coal Company, 1985, "Mining and Reclamation Plan: Tract 2, Crandall Canyon Mine".
- (10) U.S.D.A., Forest Service, 1985, "Environmental Assessment: Crandall Canyon Mine, Tract 2, Genwal Coal Co."
- (11) U.S.D.A., Forest Service, 1982, "Environmental Assessment: Crandall Canyon Mine, Genwal Coal Company".
- (12) U.S.D.A., Forest Service, 1981, "Environmental Assessment: Crandall Canyon Road and Bridge, Genwal Coal Company".

VI. LIST OF APPENDICES

Appendix A: Project Scoping Document
Appendix B: Application and Amendments
Appendix C: Forest Service Stipulations
Appendix D: Public Involvement Documents

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APPENDIX A - SCOPING DOCUMENT

TITLE 1900 - PLANNING

EXHIBIT B

PROJECT SCOPING DOCUMENT

Date 2/12/85 District Name PRICE File Code 2820
GENUAL COAL CO.

Environmental Assessment

1. Project Name EMERGENCY COAL LEASE AREA, U-54762

2. Responsible Official STAN TIXIER

3. Proposal (Who, What, Why, Where, How) General Coal Co. has submitted an Emergency Coal Lease Application U-54762 to BLM for an additional 197,560 ac to lengthen the Crandall Cyn. Mine. BLM has amended the application in the public interest to include a total of 278,160 ac. Forest Service consent has been requested by BLM for lease issuance. (see attached map)

4. Tiering Opportunities E.A. MOD. OF FED COAL LEASE SL-06244, 1982; E.A. REACT. OF FED COAL LEASE SL-06244, 4/15/83; CRANDALL CYN. MINE, TRACT 2 E.A., 1/25/85; E.A. CRANDALL CYN. MINE, 10/12/82; E.A. FOR CRANDALL CYN. ROAD & BRIDGE, GENUAL COAL CO., 5/18/81 and 11/16/81; FEDERAL PRICE LEASE, MAY, 1977.

5. Other Agencies Involved U.S.D.I., BUREAU OF LAND MANAGEMENT

6. Effects on the Environment ADDITIONAL AND BEYOND THOSE EFFECTS PREVIOUSLY IDENTIFIED IN THE TIERING DOCUMENTS: A) PREVIOUSLY IDENTIFIED EFFECTS WOULD LAST FOR AN ADDITIONAL UNDETERMINED LENGTH OF TIME; B) INCLUSION OF UNMINEABLE ACREAGE COULD ADVERSELY AFFECT FOREST SERVICE MANAGEMENT OF THE HUNTINGTON CANYON WATERSHED AND F.D.R. 50-48-CRANDALL CYN. MINE.

7. Issues & Concerns

Networks

Reaction to Project

A) MINE LIFE INCREASED FROM 20

YEARS (FOR TRACT 1 & 2) TO AN

UNDETERMINED DATE IN 21ST CENTURY

B) INCLUSION IN THE EMERGENCY

BLM

POSITIVE TO INCLUSION

LEASE OF UNNECESSARY

ACREAGE

TITLE 1900 - PLANNING

8. Suggested Alternatives (A) NO ACTION - NOT CONSIDERED VIABLE.
(B) GENWAL'S PROPOSAL AS AMENDED BY BLM WITH F.S. MANAGEMENT
REQUIREMENTS ATTACHED (C) GENWAL'S PROPOSAL AS AMENDED BY
BLM WITH UNNECESSARY ACREAGE EXCLUDED AND F.S. MANAGEMENT
REQUIREMENTS ATTACHED.

9. Analysis and Decision Criteria AS IDENTIFIED IN THE SEVEN TIERING
DOCUMENTS.

10. Analysis Skills:

Specialty	Specialist	Team Member	Consultant
<u>RANGE/WILDLIFE/HATCHED</u>	<u>LELAND MATHESON</u>	<u>X</u>	
<u>TIMBER/RECREATION</u>	<u>GARY SAY</u>	<u>X</u>	
<u>DISTRICT RANGER</u>	<u>IRA HATCH</u>	<u>X</u>	
<u>GEOLOGIST</u>	<u>WALT NOWAK</u>	<u>LEADER</u>	

11. Schedule:

- | | |
|------------------------------------|---|
| a. Functional Status Report: _____ | f. Review Draft Meeting: _____ |
| b. Initial Meeting: <u>2/12/85</u> | g. EA Draft: <u>3/85</u> |
| c. Field Review: _____ | h. DFR Decision Notice: _____ |
| d. ID Team Meeting: <u>2/12/85</u> | i. S.O. Decision Notice: _____ |
| e. ID Team Review Draft: _____ | j. Project Implementation: <u>FY-85</u> |

12. Ranger Decision: Requires Further Assessment / Categorical Exclusion _____

Joe W. Hatch
District Ranger

2/26/85
Date

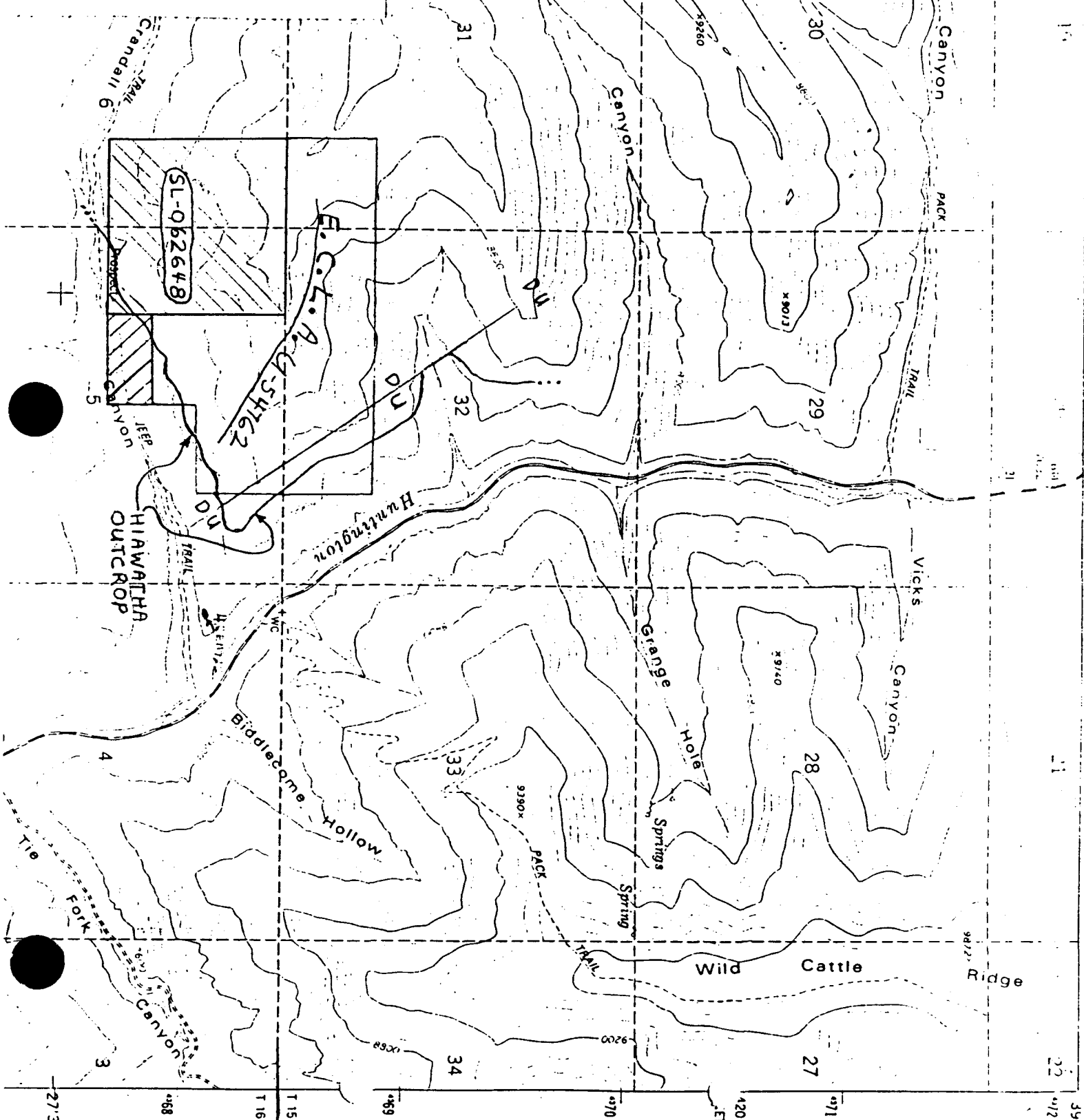
EMERGENCY
 OAL LEASE
 PPLICATION
 REA-GENWAL

EXISTING LEASE
 SL-062648 161.17 ac.

E.C.L.A. AREA - ALT. 2
 U-54762 278.16 ac.

ARE INCLUDED
 IN 21.53 ac.

FIGURE 2



)

APPENDIX B - APPLICATION AND AMENDMENTS

GENWAL COAL COMPANY

P.O. Box 1201 • Huntington, Utah 84528
Telephone (801) 687-9813

U54762

July 2, 1984

U. S. Department of Interior
Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

Attention: MAX NIELSEN

Please accept this letter as Genwal's application for emergency lease coal as per part 3425.1-4 of 43 CFR, Coal Management; Federally Owned Coal.

Genwal's response to the regulations is as follows:

3425.1-4 Emergency Leasing

- (A) (1) The coal reserves applied for will be mined through the existing portals of Genwal's Crandall Canyon Mine, Federal Coal Lease SL-062648. Genwal's Crandall Canyon Mine is operating under the authority of O.S.M. Permit No. UT-0067 issued 11-24-82 and State of Utah Division of Oil, Gas, and Mining Permit No. ACT-015-032 issued 12-13-82.
- (1) (A) The Federal Coal is needed with 3 years to maintain the existing mining operation at its current average annual level of production. Average annual level of production as of the date of this application is approximately 285,000 tons per year. The current lease holdings contain approximately 600,000 tons. O.S.M. and State of Utah, D.O.G.M. Permits indicate production rate of 120,000 tons per year for five years for the Crandall Canyon Mine. 136,000 T by 1987
- (A) (2) Consideration had been given to leasing the lands applied for under the provision of 3420.3, however, Federal tract delineation teams have continued to keep this as a portion of the "Little Bear Canyon Tract" which has remained in a deferred status due to lack of adequate information.

GENWAL COAL COMPANY

P.O. Box 1201 • Huntington, Utah 84528
Telephone (801) 687-9813

U54262

July 2, 1984

EMERGENCY LEASE APPLICATION

3425.1-7 Preliminary Data

- 1) Topo map included with this application.
- 2) Narrative Statement
 - 1) Scope, method and schedule of exploration - NONE
 - ii) Method of mining anticipated - room and pillar using a continuous mining machine

Estimate of mining sequence

Production Rate - 285,000 to 300,000 tons per year

- iii) Relationship between anticipated mining operations and existing operations - coal from mining operations on lands applied for will be extracted through mine portals of existing operation in Crandall Canyon.
- iv) Description of:
 - A) Existing land use - summer and winter big game range, sheep and cattle grazing and recreation (hunting)
 - B) Known geologic, visual, cultural, paleontological or archaeological features - NONE
 - C) Wetlands or floodplains - NONE
 - D) Known habitat of fish and wildlife - will not be affected by proposed or anticipated mining operations - no threatened or endangered species present
- v) Measures to control or prevent
 - A) Fire - will not create any surface facilities that might cause a fire or pose a fire hazard.
 - B) Initigate or prevent soil erosion - no proposed earthwork of that would cause soil erosion.
 - C) Pollution of surface and ground water - no construction earthwork or surface facilities that might cause pollution of surface or ground water.
 - D) Damage to fish and wildlife and other resources - no proposed construction or facilities that would cause damage to fish or wildlife or other natural resources.
 - E) Air and noise pollution - no facilities proposed that would create any air or noise pollution.
 - F) Adverse impacts to local community - no adverse impacts, would provide jobs that would be welcomed.

RECEIVED
JUL 19 11 00
U.S. DEPT. OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Emergency Lease) Location
July 2, 1984

J54792

G) Reclaim the surface - Surface will be reclaimed in accordance with State Of Utah, Coal Mining and Reclamation Permanent Program and O.S.M. regulations.

vi) Intended use of coal - to meet contractual coal commitments.

Sincerely,

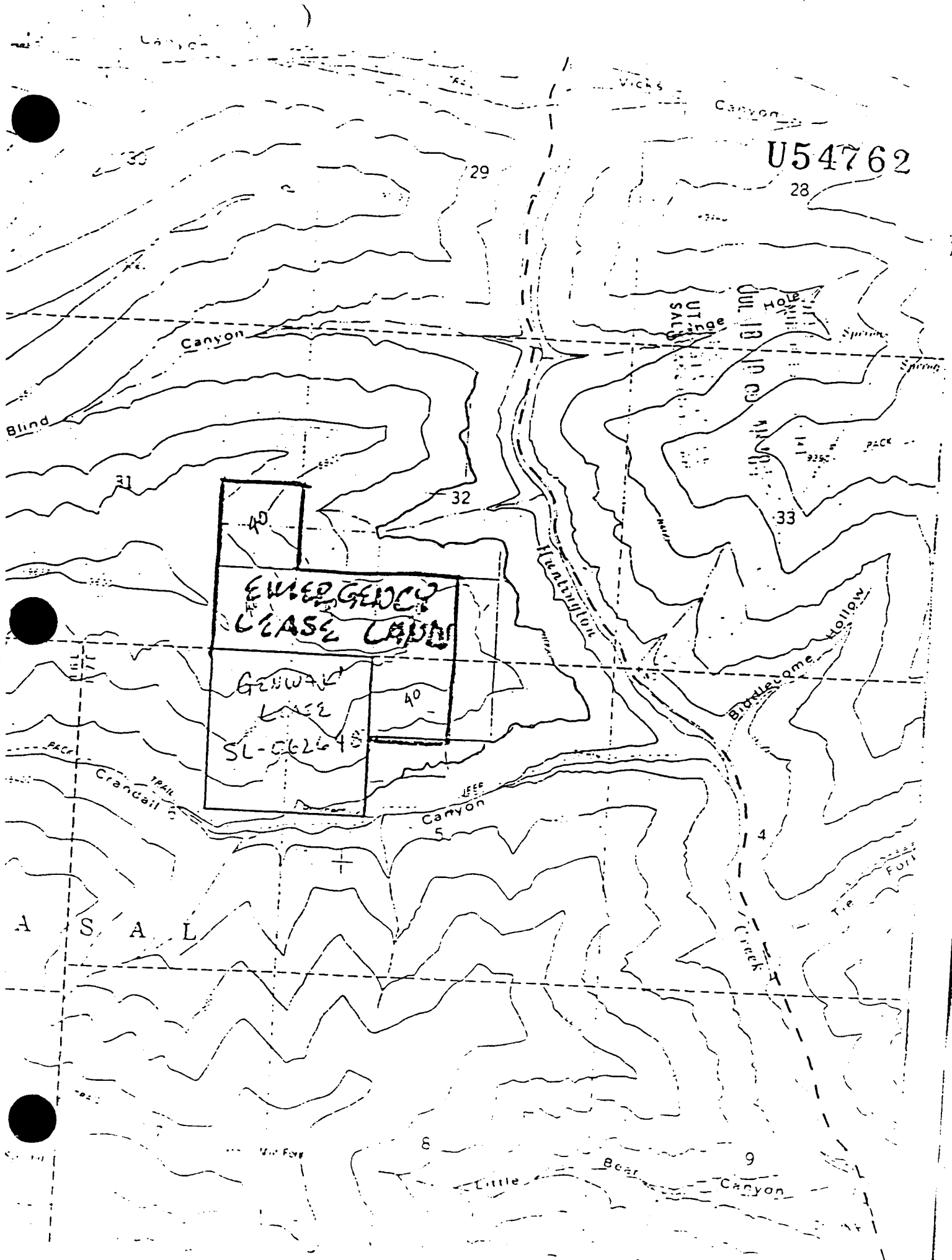
William C. Wollen

William C. Wollen

enc.

fc/vcw

U54762





United States Department of the Interior

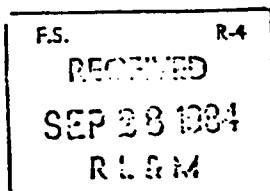
BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
136 E. SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

IN REPLY REFER TO

3425
U-54762
(U-942)

SEP 27 1984

Mr. Stan Tixier
Regional Forester
Forest Service
324-25th Street
Ogden, Utah 84401



Dear Stan:

On July 18, 1984, Genwal Coal Company filed an emergency coal lease application, assigned serial number U-54762, under 43 CFR 3425. The application includes the following described lands in Emery County, Utah, located west of the town of Hiawatha, which are available for leasing:

T. 15 S., R. 7 E., SLM, Utah
Sec. 31, E $\frac{1}{2}$ SE $\frac{1}{4}$;
Sec. 32, S $\frac{1}{2}$ SW $\frac{1}{4}$.

T. 16 S., R. 7 E., SLM, Utah
Sec. 5, NE $\frac{1}{4}$ NW $\frac{1}{4}$.

Containing 200.00 acres.

The lands applied for are within the Manti-LaSal National Forest. This land is within the area administered by the Moab District Office. A copy of the application will be transmitted to the Moab District Office for coordination with the Forest Supervisor in the preparation of the environmental assessment.

The mining plan will provide for the orderly development and mining of the coal resource from the company's existing leasehold. This pending lease application has been determined to be required, due to the fact that the coal deposit is needed to maintain the current level of production.

A number of requirements contained in the regulations (43 CFR 3425) will have to be fulfilled prior to lease issuance. Several of these requirements fall under the jurisdiction of the Forest Service as the surface management agency or will require the Forest Service and BLM coordination. We want to take this opportunity to coordinate the required actions.

In accordance with 43 CFR 3425.3(b), the Forest Service may prescribe the terms and conditions for the use and protection of the nonmineral interest in the lands under application. We recommend that any terms and conditions prescribed be in the form of a stipulation appended to the environmental assessment report. It is also advisable to provide sufficient support and background information in the environmental assessment, in the event the

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terms and conditions are appealed to the Interior Board of Land Appeals. In addition to the terms and conditions, we would also appreciate your recommendations as to the amount of bond that would be required to protect the non-mineral interests and assure reclamation of any surface disturbance outside the area of the approved mine plan.

The regulations also require that the Secretary of the Interior may not issue leases for lands the surface of which is under the jurisdiction of any agency other than the Department of the Interior, unless the Federal agency has consented to the issuance of the lease. We will, therefore, need to obtain formal consent from the Regional Forester, Forest Service, prior to issuance of the lease.

We will also need a statement pertaining to the status of the current Forest Service land use plan for the area that contained the Genwal Coal Company coal lease application, and its conformance to the requirements contained in 43 CFR 3420.1-5 and 43 CFR 3425.2.

The regulations also require that a public meeting be held concerning the environmental assessment. We would like to coordinate with you on a joint public meeting, when you feel that the preparation of the environmental assessment report is sufficiently advanced to schedule the public meeting. The Moab District Office would be BLM's contact on this matter.

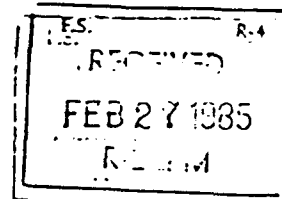
Sincerely,



Roland G. Robison
State Director

Enclosure
Copy of Application

Utah State Office
324 South State, Suite 301
Salt Lake City, Utah 84111-2000



3425
U-54762
(U-942)

FEB 15 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

DECISION

Genwal Coal Company
P. O. Box 1201
Huntington, UT 84528

Emergency Coal Lease
Application U-54762

Emergency Coal Lease Application Amended

On July 18, 1984 Genwal Coal Company filed an emergency coal lease application assigned Serial No. U-54762 for 197.56 acres in Emery County, Utah.

Our office has received a report from our Moab District Office recommending that your application be amended so as not to by pass potentially mineable coal and to allow for a more logical mine development. Therefore, pursuant to 43 CFR 3425.1-9 it has been determined to be in the public interest that your emergency coal lease application be amended to include the following lands:

T. 15 S., R. 7 E., SLM, Utah
Sec. 31, SE $\frac{1}{2}$ SE $\frac{1}{2}$;
Sec. 32, SW $\frac{1}{2}$ SW $\frac{1}{2}$, SW $\frac{1}{2}$ SE $\frac{1}{2}$.
T. 16 S., R. 7 E., SLM, Utah
Sec. 5, lots 2, 3, and 7.

Containing 278.16 acres

A period of thirty days from the receipt of this decision is allowed for appeal. If no action is taken by Genwal Coal Company within the time allowed, they will be deemed to have acquiesced to the amendment to their application. Any questions regarding the configuration of the amended application should be directed to the Moab District Office.

You have the right to appeal to the Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4, and the enclosed Form 1842-1. If an appeal is taken, your Notice of Appeal must be filed in this office so the case file can be transmitted to the Board. A copy of your Notice of Appeal and of any statement of reasons, written arguments,

(M) FILE COPY

or briefs must also be served on the Office of the Solicitor as shown on Form 1842-1. It is also requested that you send a copy of any statement of reasons, written arguments, or briefs to the office issuing the decision appealed. In taking an appeal, there must be strict compliance with the regulations.

ROBERT LOPEZ

Chief, Minerals
Adjudication Section

Enclosure
1842-1 w/enc1.

cc: Forest Service
Moab District Office, BLM



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
P. O. Box 970
Moab, Utah 84532

3400
(U-54762)
(U-055)

JUN

4 1985

JUL 10 1985

Mr. Reed Christensen
National Forest Service
599 West Price River Drive
Price, Utah 84501

Dear Mr. Christensen:

On April 2, 1985 the Forest Service requested an amendment to the Genwal Coal Company Emergency Lease Application U-54762. The Bureau of Land Management (BLM) supports this request because it would not affect coal reserves or a logical mining sequence. The adjusted boundary of the Genwal emergency lease application is shown on the attached map and includes the following lands:

- T. 15 S., R. 7E., SLM, Utah
Sec. 31, SE 1/4 SE 1/4;
Sec. 32, S 1/2 SW 1/4, SW 1/4 SE 1/4
 - T. 16S., R. 7E., SLM, Utah
Sec 5, Lots 2,3, and 8 (the former lot 7 has been divided into lots 8 and 9)
- Containing 256.46 acres.

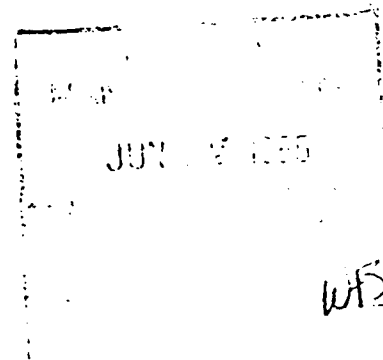
As soon as the Forest Service Scoping Document is completed, we need to arrange a public meeting with BLM and Forest Service representatives to solicit comments on the impacts of issuing the emergency lease. Comments on the fair market value and maximum economic recovery of the coal on the tracts under application will also be assimilated.

If you have any questions please contact Brent Northrup of my staff at 259-6111.

Sincerely

James J. Train
ACTING District Manager

Enclosure: (1)
Map of Emergency Lease Application



Sam

APPENDIX C - FOREST SERVICE STIPULATIONS

SPECIAL STIPULATIONS

Federal Regulations 43 CFR 3400 pertaining to Coal Management make provisions for the Surface Management Agency, the surface of which is under the jurisdiction of any Federal agency other than the Department of Interior, to consent to leasing and to prescribe conditions to insure the use and protection of the lands. All or part of this lease contain lands the surface of which are managed by the United States Department of Agriculture, Forest Service - Manti-LaSal National Forest.

The following stipulations pertain to the Lessee responsibility for mining operations on the lease area and on adjacent areas as may be specifically designated on National Forest System lands.

Forest Service Stipulation #1.

Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the Lessee may be required to conduct a cultural resource inventory and a paleontological appraisal of the areas to be disturbed. These studies shall be conducted by qualified professional cultural resource specialists or qualified paleontologists, as appropriate, and a report prepared itemizing the findings. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts for identified cultural or paleontological resources.

If cultural resources or paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the Lessee prior to disturbance shall immediately bring them to the attention of the appropriate authority. Paleontological remains of significant scientific interest do not include leaves, ferns or dinosaur tracks commonly encountered during underground mining operations.

The cost of conducting the inventory, preparing reports, and carrying out mitigating measures shall be borne by the Lessee.

Forest Service Stipulation #2.

If there is reason to believe that threatened or endangered (T&E) species of plants or animals, or migratory species of high Federal interest occur in the area, the Lessee shall be required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall be conducted by a qualified specialist and a report of findings will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

The cost of conducting the inventory, preparing reports and carrying out mitigating measures shall be borne by the Lessee.

Forest Service Stipulation #3.

The Lessee shall be required to perform a study to secure adequate baseline data to quantify the existing surface resources on and adjacent to the lease area. Existing data may be used if such data is adequate for the intended purposes. The study shall be adequate to locate, quantify, and demonstrate the inter-relationship of the geology, topography, surface hydrology, vegetation and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

Forest Service Stipulation #4.

Powerlines used in conjunction with the mining of coal from this lease shall be constructed so as to provide adequate protection for raptors and other large birds. When feasible, powerlines will be located at least 100 yards from public roads.

Forest Service Stipulation #5.

The limited area available for mine facilities at the coal outcrop, steep topography, adverse winter weather, and physical limitations on the size and design of the access road, are factors which will determine the ultimate size of the surface area utilized for the mine. A site specific environmental analysis will be prepared for each new mine site development and for major improvements to existing developments to examine alternatives and mitigate conflicts.

Forest Service Stipulation #6.

Consideration will be given to site selection to reduce adverse visual impacts. Where alternative sites are available, and each alternative is technically feasible, the alternative involving the least damage to the scenery and other resources shall be selected. Permanent structures and facilities will be designed, and screening techniques employed to reduce visual impacts and, where possible, achieve a final landscape compatible with the natural surroundings. The creation of unusual, objectionable, or unnatural landforms and vegetative landscape features will be avoided.

Forest Service Stipulation #7.

The Lessee shall be required to establish a monitoring system to locate, measure and quantify the progressive and final effects of underground mining activities on the topographic surface, underground and surface hydrology and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method for location and measurement of a number of points over the lease area. The monitoring shall incorporate and be an extension of the baseline data.

Forest Service Stipulation #8.

The Lessee shall provide for the suppression and control of fugitive dust on haul roads and at coal handling and storage facilities. On Forest Development

Roads (FDR), Lessees may perform their share of road maintenance by a commensurate share agreement if a significant degree of traffic is generated that is not related to their activities.

Forest Service Stipulation #9.

Except at specifically approved locations, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to existing surface structures, and (3) damage or alter the flow of perennial streams. The Lessee shall provide specific measures for the protection of escarpments, and determine corrective measures to assure that hazardous conditions are not created.

Forest Service Stipulation #10.

In order to avoid surface disturbance on steep canyon slopes and to preclude the need for surface access, all surface breakouts for ventilation tunnels shall be constructed from inside the mine, except at specific approved locations.

Forest Service Stipulation #11.

If removal of timber is required for clearing of construction sites, etc., such timber shall be removed in accordance with the regulations of the surface management agency.

Forest Service Stipulation #12.

The coal contained within, and authorized for mining under this lease shall be extracted only by underground mining methods.

Forest Service Stipulation #13.

Existing Forest Service owned or permitted surface improvements will need to be protected, restored, or replaced to provide for the continuance of current land uses.

Forest Service Stipulation #14.

In order to protect big game wintering areas, elk calving and deer fawning areas, sagegrouse strutting areas, and other critical wildlife habitat and/or activities, specific surface uses outside the mine development area may be curtailed during specified periods of the year.

Forest Service Stipulation #15.

Support facilities, structures, equipment, and similar developments will be removed from the lease area within two years after the final termination of use of such facilities. Disturbed areas and those areas previously occupied by such facilities will be stabilized and rehabilitated, drainages re-established, and the areas returned to a premining land use.

Forest Service Stipulation #16.

The Lessee, at the conclusion of the mining operation, or at other times as surface disturbance related to mining may occur, will replace all damaged, disturbed or displaced land monuments (section corners, 1/4 corners, etc.) their accessories and appendages (witness trees, bearing trees, etc.) or restore them to their original condition and location, or at other locations that meet the requirements of the land net. This work shall be conducted at the expense of the Lessee, by a professional land surveyor registered in the State of Utah, and to the standards and guidelines found in the Manual of Surveying Instructions, United States Department of the Interior.

Forest Service Stipulation #17.

The Lessees, at their expense, will be responsible to replace any surface water identified for protection, that may be lost or adversely affected by mining operations, with water from an alternate source in sufficient quantity and quality to maintain existing riparian habitat, fishery habitat, livestock and wildlife use, or other land uses.

STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM
UNDER JURISDICTION OF
DEPARTMENT OF AGRICULTURE

The licensee/permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of the Interior in the license/prospecting permit/lease. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of a permit/operation plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest development roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed

to Reed C. Christensen, Forest Supervisor

at 599 West Price River Drive, Price, Utah 84501

Telephone No.: 801-637-2817

who is the authorized representative of the Secretary of Agriculture.

Signature of Licensee/Permittee/Lessee

APPENDIX D - PUBLIC INVOLVEMENT DOCUMENTS

(Serial No. 1-16999 et al.)

Idaho; Order Providing for Opening of Public Land

In thirteen exchanges made under the provisions of Section 206 of the Act of October 21, 1976, 90 Stat. 2756, 43 U.S.C. 1716, the following lands have been reconveyed to the United States:

Boise Meridian, Idaho	CLEAR
I-16999	PROMISE CARD FOR

- T. 7 S., R. 40 E.,
Sec. 34, E $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$;
Sec. 35, SW $\frac{1}{4}$ NW $\frac{1}{4}$.
T. 8 S., R. 40 E.,
Sec. 3, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$.
I-18538
T. 56 N., R. 2 E.,
Sec. 17, S $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$;
Sec. 20, patented part of Almo No. 2 Lode
of M.S. 3537 in the W $\frac{1}{2}$ NE $\frac{1}{4}$.
I-18951
T. 14 N., R. 21 E.,
Sec. 15, N $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$.
I-19367
T. 2 S., R. 16 E.,
Sec. 29, NW $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$,
SW $\frac{1}{4}$ NW $\frac{1}{4}$;
Sec. 30, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$,
SW $\frac{1}{4}$ SE $\frac{1}{4}$;
Sec. 31, W $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$,
SE $\frac{1}{4}$ SE $\frac{1}{4}$.
T. 3 S., R. 16 E.,
Sec. 5, SW $\frac{1}{4}$ NW $\frac{1}{4}$;
Sec. 6, lots 1 and 7, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$,
N $\frac{1}{2}$ SE $\frac{1}{4}$;
Sec. 7, lot 1.
I-17821
T. 15 S., R. 26 E.,
Sec. 4, SE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$;
Sec. 9, NE $\frac{1}{4}$ NE $\frac{1}{4}$;
Sec. 10, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$.
T. 16 S., R. 26 E.,
Sec. 13, W $\frac{1}{2}$ NE $\frac{1}{4}$;
Sec. 23, NE $\frac{1}{4}$ NE $\frac{1}{4}$.
I-18302
T. 8 S., R. 38 E.,
Sec. 23, SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$;
Sec. 24, SE $\frac{1}{4}$ SW $\frac{1}{4}$;
Sec. 25, N $\frac{1}{2}$ NW $\frac{1}{4}$;
Sec. 26, NE $\frac{1}{4}$ NE $\frac{1}{4}$.
T. 9 S., R. 39 E.,
Sec. 17, E $\frac{1}{2}$ SW $\frac{1}{4}$.
I-13343
T. 2 N., R. 3 E.,
Sec. 10, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$;
E $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$;
Sec. 14, N $\frac{1}{2}$ NW $\frac{1}{4}$;
Sec. 15, N $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$;
Sec. 23, N $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$;
Sec. 24, N $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$,
S $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$,
SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$.
T. 2 N., R. 4 E.,
Sec. 19, lot 4 except for 120 foot square
parcel described as follows: Beginning at
a point on the south line of section 19
from which the southwest corner of
section 19 bears N 89°32'30" W. a

Conveyance under the provisions of sec. 4(a) of the Alaska Native Claims Settlement Act of December 18, 1971 (ANCSA), 43 U.S.C. 1601, 1611, will be issued to Eklutna, Inc. for approximately 950 acres. The lands involved are within the Lake George-Recreation Area, in T. 16 N., R. 3 E., Seward Meridian, Alaska.

A notice of the decision will be published once a week for four (4) consecutive weeks, in the ANCHORAGE DAILY NEWS. Copies of the decision may be obtained by contracting the Bureau of Land Management, Alaska State Office, 701 C Street, Box 13, Anchorage, Alaska 99513. ((907) 271-5960).

Any party claiming a property interest which is adversely affected by the decision shall have until August 1, 1985 to file an appeal. However, parties receiving service by certified mail shall have 30 days from the date of receipt to file an appeal. Appeals must be filed in the Bureau of Land Management, Division of Conveyance Management (960), address identified above, where the requirements for filing an appeal can be obtained. Parties who do not file an appeal in accordance with the requirements of 43 CFR Part 4, Subpart E, all be deemed to have waived their rights.

Olivia Short,
Section Chief, Branch of ANCSA
Adjudication.

[FR Doc. 85-15823 Filed 7-1-85; 8:45 am]
BILLING CODE 4310-JA-M

Emergency Coal Lease Application on Public Land in Carbon and Emery Counties; Public Meeting

June 24, 1985.

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Public Meeting.

SUMMARY: Emergency Coal Lease Application on Public Land in Carbon and Emery Counties.

The Bureau of Land Management (BLM) intends to hold a public meeting concerning an application for coal leasing on public land under the "Emergency Leasing" provisions. The meeting is to provide the opportunity for the public to comment on and discuss the potential effects of mining the proposed leases, including impacts to the environment, other land uses, other economic activities, and community or regional services. Comments on the Fair Market Value and the Maximum Economic Recovery of the coal on the tracts under application will also be received.

The public meeting will be held at 7 p.m. on August 7, 1985 at the BLM office located at 900 North 700 East in Price, Utah. Written comments on Fair Market Value will be received through 30 days from the date of this notice.

A draft environmental assessment has been prepared by the Manti-LaSal National Forest which addresses the impacts of issuing an emergency coal lease applied for by Genwal Coal Company. The 278.16 acre tract (U-54762) is located on the Manti-LaSal National Forest in Carbon and Emery Counties approximately 5 miles west of Hiawatha, Utah. The coal would be mined from the existing Crandall Canyon Mine of Genwal Coal Company. The tract is described as follows:

- T. 15 S., R. 7 E., SLM, Utah,
Sec. 31, SE $\frac{1}{4}$ SE $\frac{1}{4}$;
Sec. 32, S $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$.
T. 16 S., R. 7 E., SLM, Utah,
Sec. 5, Lots 2, 3, and 8.

Comments on Fair Market Value and Maximum Economic Recovery should address specific factors, including, but not limited to: the quantity and quality of the coal resource, the price that the mined coal would bring in the market place, the cost of producing the coal, the probable timing and rate of production, the interest rate at which anticipated income streams would be discounted, depreciation and other accounting factors, the expected rate of industry return and mining method.

Documentation or similar market transactions, including location, terms and conditions, may also be submitted. Public comments will be utilized in establishing fair market value for the coal resources in the described lands as prescribed in 43 CFR 3422.1. Any proprietary information labeled as such and so stated on the first page of the submission will not be available to the public, if it meets exemptions in the Freedom of Information Act. Comments on Fair Market Value or Maximum Economic Recovery should be sent to the Utah State Director, Bureau of Land Management, 324 South State Street, Salt Lake City, Utah, 84111-2303, and to the Deputy Minerals Manager—Resource Evaluation, Bureau of Land Management, Denver Service Center, Denver Federal Center, Denver, Colorado 80225, to arrive no later than 30 days of the date of this notice.

Additional information is available from the Moab District, P.O. Box 970, Moab, Utah 84532.

Kenneth V. Rhee,
Acting District Manager.
Dated: June 2, 1985.

[FR Doc. 85-15825 Filed 7-1-85; 8:45 am]
BILLING CODE 4310-DO-M

Sun Advocate
Wed. July 3rd 85

UNITED STATES DEPARTMENT
OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
UTAH

NOTICE OF PUBLIC MEETING
EMERGENCY COAL LEASE APPLICATION
ON PUBLIC LAND IN
CARBON AND EMERY COUNTIES

The Bureau of Land Management (BLM) intends to hold a public meeting concerning an application for coal leasing on public land under the "Emergency Leasing" provisions. The meeting is to provide the opportunity for the public to comment on and discuss the potential effects of mining the proposed leases, including impacts to the environment, other land uses, other economic activities, and community or regional services. Comments on the Fair Market Value and the Maximum Economic Recovery of the coal on the tracts under application will also be received.

The public meeting will be held at 7 p.m. on August 7, 1985 at the BLM office located at 900 North 700 East in Price, Utah. Written comments on Fair Market Value will be received through 30 days from the date of this notice.

A draft environmental assessment has been prepared by the Manti-LaSal National Forest which addresses the impacts of leasing an emergency coal lease applied for by Genwal Coal Company. The 278.16 acre tract (U-54762) is located on the Manti-LaSal National Forest in Carbon and Emery Counties approximately 5 miles west of Hildale, Utah. The coal would be mined from the existing Crandall Canyon Mine of Genwal Coal Company. The tract is described as follows: T.15 S., R. 7 E., SLM, Utah, Sec. 31, SE/4SE/4, Sec. 32, S/2SW/4, SW/4SE/4; and T. 16 S., R. 7 E., SLM, Utah, Sec. 5, Lots 2, 3, and 8.

Comments on Fair Market Value and Maximum Economic Recovery should address specific factors, including, but not limited to: the quantity and quality of the coal resource, the price that the mined coal would bring in the market place, the cost of producing the coal, the probable timing and rate of production, the interest rate at which anticipated income streams would be discounted, depreciation and other accounting factors, the expected rate of inflation. Any proprietary information labeled as such and so stated on the first page of the submission will not be available to the public, if it meets exemptions in the Freedom of Information Act. Comments on Fair Market Value or Maximum Economic Recovery should be sent to the Utah State Director, Bureau of Land Management, 324 South State Street, Salt Lake City, Utah, 84111-2003, and to the Deputy Minerals Manager - Resource Evaluation, Bureau of Land Management, Denver Service Center, Denver Federal Center, Denver, Colorado 80225, to arrive no later than 30 days of the date of this notice.

Additional information is available from the Moab District, P.O. Box 970, Moab, Utah 84532.

Dated: June 21, 1985

Ken Rhea,

Acting District Manager

Published in the Sun Advocate July 3, 10 and 17, 1985.

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Moab District

IN REPLY REFER TO:

5703
(U-065)

Walt

To : State Director, Utah (U-110)

FROM : District Manager, Moab

Date: AUG 19 1985

SUBJECT : Public Meeting for the Genwal Coal Company.
Emergency Lease Application (ELA)

A public meeting was held August 7, 1985 at 7:00 p.m. at the Bureau of Land Management (BLM) Price Area Office in response to the Genwal ELA in accordance with 43 CFR 3425.4. The meeting was advertised in the Federal Register and two local newspapers--the Sun Advocate and the Emery County Progress.

The findings of the BLM regarding the fair market value of the coal resource and the maximum economic recovery of the coal on the tract were summarized by Brent Northrup, Branch Chief of Solid Minerals for the BLM Moab District Office. A scoping document prepared by the Forest Service regarding the potential impacts of mining and subsequent mining of the lands under application was summarized by Walt Novak, geologist for the Manti-LaSal National Forest.

Only Andy King, manager of Genwal Coal Company, was in attendance. No comments were obtained on the aforementioned issues.

/S/ GENE NODINE

cc: Reed C. Christensen, ✓
Manti-LaSal National Forest

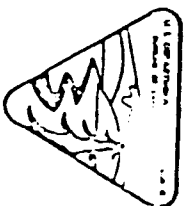
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SEARCHED	INDEXED
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MAR 1985	
AUG 20 1985	
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Sam	

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VISITOR'S ROSTER



DATES

ARRIVAL DEPARTURE

NAME

OFFICE/ADDRESS

REPRESENTING

3/7/85

WALTER E. NOWAK

PRICE DIST OFFICE

MRS. N.E. PRICE

USDA, F.S.

11106

Shannon DeAnn Hoefeler

11106b, Litha

BLM

"

Brent Northrup

"

Andy King

Robert Price UT

General

Joe Burgher

PRRA

Price UT

BLM

Allen L. Vance

PRRA

Price UT

BLM

Brent Northrup

Price UT

BLM

Office of Land Management
Utah State Office
University Club Building
136 East South Temple
Salt Lake City, Utah 84111

APPENDIX A
687-9813
748-5394
8/24/81

RECEIVED
MANTI-LASAL NATIONAL FOREST
PRICE R. D.
AUG - 4 1981
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cc
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JUL 30 1981

FOREST SERVICE MANTI-LASAL NATIONAL FOREST PRICE R. D.		
AUG - 4 1981		
SECTION	TO	INFO
	OFF	
	Walter	WU
	J. W. W.	Ben Boz
FROM: CARD 100		

Mr. Jeff Simon
Regional Forester
Forest Service
324 - 25th Street
Ogden, Utah 84401

Modified Readjustment

Dear Jeff:

On November 5, 1980, Gent Flying Enterprises, Inc. filed an application for lease modification of coal lease Salt Lake 062648 to include the following described land in Emery County, Utah:

T. 16 S., R. 7 E., SLN, Utah
Sec. 5, lot 4; ✓
Sec. 6, lot 1. ✓

Containing 75.23 acres

All of these lands are within the boundaries of the Manti-LaSal National Forest. An environmental assessment should be prepared at this time.

A report has been received from the Geological Survey recommending approval of the application since the proposal is in exchange for the relinquishment of coal lease SL-050655. This would allow a mine plan which could be developed that would be less visible to the public and provide for the mining available reserves in a more efficient logical mining unit.

Your report should include your consent to lease and recommendation concerning the environmental assessment as well as stipulations which should be included in the proposed modified lease. We will also need a statement pertaining to the status of the current land use plan for the area and its conformance to the requirements contained in 43 CFR 3420.1-5 and 43 CFR 3425.2.

The regulations also require that a public meeting be held concerning the environmental assessment. We would like to coordinate with the Forest Service on a joint public meeting when you feel that the preparation of the

environmental assessment report is sufficiently advanced to schedule the public meeting. The Moab District Office would be BLM's contact on this matter.

We have enclosed a copy of the application and Geological Survey Report for your information.

Sincerely yours,

Dean E. Stipanovich

State Director

ACTING

Enclosure
Geological Survey Report
Exploration Plan

cc:— Forest Supervisor, Manti-LaSal National Forest
350 East Main, Price, Utah 84501
Moab District Office

324 25th Street
Ogden, UT 84401

2820

JUN 17 1981

Mr. Dean E. Stepanek
Acting Utah State Director
Bureau of Land Management
136 East South Temple
Salt Lake City, UT 84111

Dear Mr. Stepanek:

Enclosed is an Environmental Assessment pertaining to the readjustment of Federal Coal Lease SL-050655. The assessment addresses both the readjustment of the coal lease and a preferred alternative which involves the relinquishment of the subject lease and a modification of Federal Coal Lease SL-062648 to embrace an additional 80 acres of coal lands in:

T. 16 S., R. 7 E., SLM namely;
Sec. 5, lot 4;
Sec. 6, lot 1.

As indicated in Appendix A of the EA, the possibility of such an action was explored about 4 years ago. Our files show there has been no followup to this proposal, although all concerned parties (FS-BLM-CS) and the lessees were agreeable to the action.

Before we submit our final recommendations on this lease readjustment, we would appreciate your review of our EA and your evaluation of the possibility of a modification of SL-062648 to include 80 acres of coal land, in effect an exchange for coal lease SL-050655.

Sincerely,

William L. Johnson

for L. KENT MAYS, JR.
Deputy Regional Forester
Resources

Enclosure

cc:
Manti-LaSal NF

APPENDIX ~~A~~ C

MANAGEMENT REQUIREMENTS STANDARD COAL LEASE STIPULATIONS

STIPULATION 1

The coal contained within the lease area and authorized for mining under this lease shall be extracted only by underground mining methods.

STIPULATION 2

All support facilities, structures, equipment, and similar developments will be removed from the lease area within two years after the final termination of use of such facilities. All disturbed areas and those areas occupied by such facilities will be rehabilitated in accordance with an approved reclamation plan, 30 CFR 211 and the "Surface Mining Control and Reclamation Act of 1977" or approved Utah program as applicable.

STIPULATION 3

(a) Before undertaking any activities that may disturb the surface of the leased lands, the Lessee may be required to conduct a cultural resource intensive field inventory in a manner specified by the Regional Director and the Authorized Officer of the surface managing agency on portions of the mine plan area and adjacent areas, or exploration plan area, that may be adversely affected by lease-related activities and which were not previously inventoried at such a level of intensity. The inventory shall be conducted by a qualified professional cultural resource specialist (i.e., archaeologist, historian, or historical architect, as appropriate), approved by the Authorized Officer of the surface managing agency and a report of the inventory and recommendations for protecting any cultural resources identified shall be submitted to the Regional Director (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area) and the Authorized Officer of the surface managing agency. The Lessee shall undertake measures, in accordance with instructions from the Regional Director (or the District Mining Supervisor if activities are associated with coal exploration outside an approved mining permit area), to protect cultural resources on the leased land. The Lessee shall not commence the surface disturbing activities until permission to proceed is given by the Regional Director or the District Mining Supervisor as appropriate.

(b) The Lessee shall protect all cultural resource properties within the lease area from lease-related activities until the cultural resource mitigation measures can be implemented as part of an approved mining and reclamation plan or exploration plan.

(c) The cost of conducting the inventory, preparing reports, and carrying out mitigation measures shall be borne by the Lessee.

(d) If cultural resources are discovered during operations under this lease, the Lessee shall immediately bring them to the attention of the Regional Director (or the District Mining Supervisor as appropriate), and the Authorized Officer, Surface Management Agency. The Lessee shall not disturb such resources except as may be subsequently authorized by the Regional Director (or the District Mining Supervisor). Within two (2) working days of notification, the Regional Director (or the District Mining Supervisor, as appropriate) will evaluate or have evaluated any cultural resources discovered and will determine if any action may be required to protect or preserve such discoveries.

(e) All cultural resources shall remain under the jurisdiction of the United States until ownership is determined under applicable law.

STIPULATION 4

Before undertaking any activities that may disturb the surface or the leased lands, the Lessee shall contact the Regional Director and Authorized Officer of the Surface Management Agency to determine whether the Lessee will be required to conduct a paleontological appraisal of the mine plan and adjacent areas, or exploration plan areas, that may be adversely affected by lease-related activities. If the Regional Director and Authorized Officer, Surface Management Agency, determines that one is necessary, the paleontological appraisal shall be conducted by a qualified paleontologist approved by the Authorized Officer of the surface management agency, using the published literature and, where appropriate, field appraisals for determining the possible existence of fossils of scientific significance. A report of the appraisal and recommendations for protecting any fossils of significant scientific interest on the leased lands so identified shall be submitted to and approved by the Regional Director and the Authorized Officer, Surface Management Agency. When necessary to protect and/or collect the fossils of significant scientific interest on the leased lands, the Lessee shall undertake the measures provided in the approval of the mining and reclamation plan or exploration plan.

(a) The Lessee shall not knowingly disturb, alter, destroy, or take any fossils of significant scientific interest, and shall protect all such fossils in conformance with the measures included in the approval of the mining and reclamation plan or exploration plan.

(b) The Lessee shall immediately bring any such fossils that might be altered or destroyed by his operation to the attention of the Regional Director or the District Mining Supervisor, as appropriate. Operations may continue as long as the fossil specimen or specimens would not be seriously damaged or destroyed by the activity. The Regional Director or the District Mining Supervisor, as appropriate, shall evaluate or have evaluated such discoveries brought to his attention and, within five (5) working days, shall notify the Lessee what action shall be taken with respect to such discoveries.

(c) All such fossils of significant scientific interest shall remain under the jurisdiction of the United States until ownership is determined under applicable law. Copies of all paleontological resource data generated as a result of the lease term requirements will be provided to the Regional Director or the District Mining Supervisor, as appropriate.

(d) These conditions apply to all such fossils of significant scientific interest discovered within the lease area whether discovered in the overburden, interburden, or coal seam or seams. Fossils of significant scientific interest do not include those fossils commonly encountered during underground mining operations such as ferns and dinosaur tracks. Skeletal remains shall be considered significant.

STIPULATION 5

The Lessee shall, prior to entry upon the lease, conduct an intensive field inventory for threatened and endangered plant and/or animal species, bald or golden eagles, or migratory species of high Federal interest on those areas to be disturbed and/or impacted including the access routes to the lease area. The inventory shall be conducted by a qualified specialist(s) approved by the Authorized Officer, Surface Management Agency, and a report of the inventory and recommendation for the protection of these species submitted to and approved by the Authorized Officer, Surface Management Agency, and Regional Director or District Mining Supervisor as appropriate. An acceptable report of any findings shall include the specific location, distribution, and habitat requirements of the species. The Lessee shall protect these species within the lease area from any activities associated with operations conducted under the terms of the lease and shall undertake such protective measures as may be required by the Authorized Officer, Surface Management Agency, and Regional Director or District Mining Supervisor as appropriate.

STIPULATION 6

Powerlines used in conjunction with the mining of coal from this lease shall be constructed so as to conform with the publication "Suggested Practices for Raptor Protection on Powerlines" (Edison Electric Institute, 1975). When feasible, powerlines will be located at least 100 yards from public roads.

STIPULATION 7

The Lessee shall provide for the suppression and control of fugitive dust on all haul roads, and at coal hauling, transportation, and storage facilities. The migration of road surfacing materials shall be controlled by watering, chemical treatment or hard surfacing. Loss of gravel courses shall be periodically replaced.

STIPULATION 8

In order to avoid surface disturbance on steep canyon slopes and the need for surface access, all surface breakouts for ventilation tunnels shall be constructed from inside the mine, except at specific locations approved by the Regional Director with the concurrence of the Authorized Officer, Surface Management Agency and the District Mining Supervisor.

STIPULATION 9

Prior to mining, the Lessee shall perform a study to secure adequate baseline data to quantify the existing surface resources on and adjacent to the lease area. The study will be established in consultation with and approved by the Authorized Officer, Surface Management Agency, the Regional Director, and the District Mining Supervisor and shall be adequate to locate, quantify, and demonstrate the inter-relationship of the geology, topography, surface hydrology, vegetation, and wildlife. Baseline data will be established so that future programs of observation can be incorporated at regular intervals for comparison.

STIPULATION 10

The Lessee shall establish a monitoring system to locate, measure, and quantify the progressive and final effects of underground mining activities on the topographic surface, underground and surface hydrology, and vegetation. The monitoring system shall utilize techniques which will provide a continuing record of change over time and an analytical method for location and measurement of a sufficient number of points over the lease area. The monitoring shall be an extension of the baseline data and shall be conducted by a method approved by the Regional Director in consultation with and concurrence by the Authorized Officer, Surface Management Agency and District Mining Supervisor.

STIPULATION 11

Underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to surface structures, and improvements, and (3) damage or alter the flow of perennial streams. The Lessee in his mining plan shall provide specific measures for the protection of escarpments. The Regional Director in consultation with and concurrence of the District Mining Supervisor and Authorized Officer, Surface Management Agency, shall approved such measures and may prescribe any additional measures to be employed such as mining methods, specify the amount of coal recovered, and determine any corrective measures considered necessary to assure that escarpment failure does not occur except at specifically approved locations, or that hazardous conditions are not created.

STIPULATION 12

Existing surface improvements required for the surface uses of the lease area will need to be protected or maintained to provide for the post-mining continuance of the current land uses. Existing surface improvements whose utility may be lost or damaged as a result of mining activities are to be replaced or restored.

STIPULATION 13

The Lessee shall reclaim all areas disturbed as a result of mining and exploration operations to a land use capable of supporting the premining levels of livestock grazing, big game winter range, and other wildlife habitat.

STIPULATION 14

At the conclusions of the mining operation, or at the request of the Authorized Officer of the Surface Managing Agency, all damaged, disturbed, or displaced land monuments, accessories and appendages shall be replaced or restored in their original location (or at other locations that meet the needs of the land net, and as approved by the Authorized Officer of the Surface Managing Agency) and shall be done at the expense of the Lessee.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
P. O. Box 970
Moab, Utah 84532

3400
(SL-062648)
(U-066)

MAR 28 1986

Memorandum

To: Richard Holbrook, OSM Senior Project Manager, State of Utah, Denver
Attention: Ron Naten
From: ~~ACTING~~ District Manager, Moab
Subject: Genwal Coal Company, Crandall Canyon Mine, Emery County, Utah,
Approved Mine Plan

The Genwal Coal Company response to UT DOGM letter of November 25, 1986 regarding insurance certificate and ground water hydrology in the Tract 2 permit application has been received in this office for review.

The above information has been reviewed for compliance with 43 CFR 3482.1(c), particularly the resource recovery and protection plan (R2P2) or underground mine part of the plan. Also, the information was reviewed for conflicts with future coal recovery and lease conditions.

The material submitted provides adequate information and satisfies the concerns of the BLM administration of the associated Federal coal lease SL-062648 and the regulations pertaining to the R2P2 underground mine part of the PAP. The Forest Service is the surface management agency for Crandall Canyon Mines; therefore, your request for FLMA and FS comments are left for them to address.

Should you have any questions please contact Allen Vance in our Price Office at (801) 637-4584.

cc:
USO (U-921)
DOGM
Genwal Coal Company



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
P. O. Box 970
Moab, Utah 84532

IN REPLY
REFER TO:

3400
(SL-062648)
(U-066)

DEC 20 1984

Memorandum

To: Center Administrator, OSM, Denver
From: District Manager, Moab
Subject: Genwal Coal Company's Crandall Canyon Mine, Lease Tract 2

We have received the permit application for subject mine. Analysis of the application in regards to lands unsuitable for mining and postmining land use will be addressed by the Forest Service. Approval of the resource recovery and protection plan will be provided by our State Office. Therefore, we do not have any comments in regard to this application.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
324 SOUTH STATE, SUITE 301
SALT LAKE CITY, UTAH 84111-2303

IN REPLY REFER TO

3482

SL-062648

U-921

October 11, 1985

Betty-File

To: Richard Holbrook, OSM Senior Project Manager, State of Utah,
Denver

Attn: Ron Naton

From: Chief, Solid Minerals and Mining Law

Subject: Genwal Coal Company, Crandall Canyon Mine, Emery County, Utah,
Approved Mining Plan

The following subject information has been received in this office for review:

Two volumes forwarded with your letter dated September 12, 1985, and identified as "Mining and Reclamation Plan, Tract 2, Crandall Canyon Mine."

Pages forwarded with your letter dated September 20, 1985, and identified as "09/05/85 UT DOGM Transmittal of MRP amendment plans to increase coal production."

The above information has been reviewed for compliance with 43 CFR 3482.1(c), particularly the resource recovery and protection plan (R2P2) or underground mining part of the subject plan. We were also requested to note any conflicts with future recovery of coal resources.

The two-volume submittal appears to be a complete resubmittal of the volume identified as Lease Tract 2, reviewed in this office and commented on by our memorandum dated October 30, 1984.

The following are our comments on the new submittals listed above:

1. The two new Tract 2 volumes provide adequate information for the requirements of 43 CFR 3482.1(c) rules and regulations and to satisfy the concerns of our subject memorandum dated October 30, 1984.

2. The mining plan as submitted does not conflict with future recovery of coal resources.

3. Plate 3-2, "Mining Sequence by Future Permit." This print is not approved as submitted. At this time, the only coal lands that Genwal Company has a legal right to mine coal from are Tract 1 and Tract 2 as shown. All other lands shown will require that additional coal leases be issued. The emergency lease has been filed and is being considered.

4. Plate 3-1, "Crandall Canyon Mine Tract 2 Mining Plan Hiawatha Seam." Property barriers as shown are too large. These discrepancies can be adjusted and approved by BLM as mining progresses.

5. Plate XII-5, "Subsidence Limit." The angles of draw used on this drawing are larger than the angle of draw generally accepted for this coal field. Movable coal reserves, that are reduced because of an angle of draw involvement, must have BLM participation and approval.

We have determined that the total plan submission, Tracts 1 and 2, are adequate for BLM administration of the associated Federal coal lease(SL-062648) and that maximum recovery can be achieved within the limits of the equipment and technology presented in the plan. We recommend approval of the underground mining part of the permit application for Tract 2 and the included parts of Tract 1 with reservations to negotiate, if necessary, barrier pillar sizes and angle of draw.

Jackson H. Moffitt



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
136 E. SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

UT0067
IN REPLY REFER TO

3472
SL-062648
U-921

October 30, 1984

Memorandum

To: Walter Swain, OSM Senior Project Manager,
State of Utah, Denver

Attn: Ron Naton

From: Chief, Mining Law & Solid Minerals,
BLM-SO, Salt Lake City

Subject: Genwal Coal Company, Crandall Canyon Mine,
Emery County, Utah, Mining Plan

The volume forwarded with your letter dated September 24, 1984, and identified as "Permit Application, Crandall Canyon Mine, Lease Tract 2," has been reviewed for compliance with 43 CFR 3482.1(c) rules and regulations. Our comments follow:

1. On page 1-1 it states, "The following material constitutes a modification to an approved Mining and Reclamation Plan to obtain an underground coal mining Lease Modification for the Crandall Canyon Mine...." The plan as submitted is not complete and there are very few references to the approved subject plan.

2. The format of this submittal follows the Division of Oil, Gas and Mining guidelines titled, "General Guidelines for Organizational Format and Content - Permit Applications, revised 11/03/80." The resource recovery and protection plan (R₂P₂) or underground mining part of the submittal must follow the rules and regulations 43 CFR 3482.1(b) and include the material required by 43 CFR 3482.1(c) rules and regulations. The requirements for the R₂P₂ part of the submittal are interspersed throughout the permit application to the approved subject mine plan. The Bureau of Land Management (BLM) requires a cross-reference index for this type of format, that designates the sections, pages, and maps which contain the 43 CFR 3482.1(c) requirements. We suggest the cross-reference index should follow the format of the attached R₂P₂ checklist that lists in order the requirements of 43 CFR 3482.1(c). The BLM is the administrator of the Federal coal lease SL-062648 which is the property involved in the subject plan.

3. On page 3-28 of the geologic section, it states that outcrops will be protected by using a 30 degree angle-of-draw. We suggested an angle-of-draw of 20 degrees, which is closer to the data being developed in this coal field.

4. The plan indicates two minable coal seams. Coal analysis data on page 6-18 only covers the Hiawatha seam. Rules and regulations at 43 CFR 3482.1(c)(3) require the appropriate data for all minable seams.

5. Plate 3-1 in the Tract 2 submittal only shows the mine plan for the Hiawatha seam in Tract 2. In order to comply with CFR 3482.1(c)(3) (ii) it will be necessary to include mine plan maps for the two minable seams covering the total property showing the overall mining sequence. The required two mine plan maps will also be needed to comply with 43 CFR 3483.1(c) rules and regulations at (3)ii, (3)(iv), (4)(i), (4)(v)(A), (4)(v)(B), (4)(v)(c), (4)(v)(D), (4)(v)(E), (6), and (7).

6. There should be a map included that shows the surface facilities or a reference in the narrative which refers to the pertinent map or maps that are a part of the approved mine plan.

7. The required maps referred to in item 5 above should also show the strike and dip of the minable seams.

8. Rules and regulations at 43 CFR 3482.1(a)(4)(ii) require isopach maps for each coal bed to be mined and the overburden and interburden. The overburden isopach map, plate 3-1, is the only one included in this submittal. Other required isopachs should be submitted.

9. On page 3-5 it states that the "projected mine development in Tract 2 is shown on Plate 3-2 (lower seam) and Plate 3-3 (upper seam)." Plates 3-2 and 3-3 for projected mine development are missing from the submittal. There is a map identified as Plate 3-2 and titled, "Subsidence Monitoring Map."

10. On pages 2-7 and 2-8 it states that, "Plate 3-4 shows the mine development plan by seam during each of the next 5 years, then for each 5-year period thereafter...." Plate 3-4 is missing from this submittal.

11. Rules and regulations at CFR 3482.1(c)(4)(v)(E) relative to the R2P2 plan, require the sequence of development and retreat. The BLM requires for this R₂P₂, copies of the development and retreat methods approved by the Mine Safety and Health Administration.

J. H. Moffitt

cc: MDO
PRRA
Genwal
DOGM

United States
Department of
Agriculture

Forest
Service

Manti-LaSal
National Forest

599 West Price River Drive
Price, Utah 84501

Reply to: 2820

Date: December 1, 1986

Mr. Richard M. Holbrook
Office of Surface Mining
Reclamation and Enforcement
Brooks Towers
1020 15th Street
Denver, Colorado 80202

Dear Mr. Holbrook:

The Manti-LaSal National Forest has reviewed Genwal Coal Company's Mine and Reclamation Plan for Tract 2.

We consent to approval of the Plan subject to the stipulations discussed in the Environmental Assessment (EA) prepared by the Manti-LaSal National Forest on April 23, 1983 for modification of Federal Coal Lease SL-062648 (enclosed). These stipulations were included as special stipulations in Section 31 of the modified lease issued on March 31, 1984.

We also have the following comments on the Tract 2 Mine Plan which need to be addressed.

1. The table of contents at the beginning of each volume should have a title and each of the chapters should be numbered.
2. Section 3.3.8.1, Page 3-5

At the present time, Genwal Coal holds no further leases in the area, however, an application for approximately 256 acres has been filed with the Bureau of Land Management.

Federal Coal Lease U-54762 has been issued to Genwal Coal Company. This discussion should be revised accordingly.

3. Section 3.5.1.1, Page 3-6

. . . and since the operation on this permit area involves no surface disturbance, no impacts are expected to the current or future land use.

It should be discussed that there may be effects from subsidence.

4. Section 3.5.6, Page 3-8

In addition, Genwal Coal Company is committed to mitigating as much as possible the adverse effects of mining or associated activities through a training film supplied by the UDWR.

An exploration is needed. Are there specific measures that will be required which are discussed in the training film? If so, they should be discussed in this section.

5. Section 3.5.8, Page 3-11

The only renewable resource known to exist on the surface area is not expected to have a negative impact on the forest.

This statement does not make sense as written.

6. Chapter 6, Table of Contents

The table of contents for the Chapter 6 appendix must be changed to match the table of contents at the beginning of Chapter 6. The use of tables and figures is interchanged.

7. Section 6.4.1, Page 6-2

The geology of the mine area is shown on Plate 6-1 and in a geologic cross-section on Figure C-1.

Plate 6-1 is an overburden isopach map not a geologic map, and Figure C-1 cannot be found. A geologic map at approximately the scale as Plate 6-1 should be added. Presumably, Figure C-1 referred to here is the cross-section (Figure 6-1) which was included in the appendix as Item 4. The location of the cross-section should be shown on the geologic map.

8. Section 6.4.1, Page 6-3

. . . the Blackhawk Formation is approximately 1,00 feet thick.

This should be corrected to 1,000 feet.

9. Section 6.4.2, Page 6-4

The anticline and syncline axis have a predominant east-west orientation, while the fault zones are generally oriented north-south (see Figures 6-2 and 6-3).

Figure 6-3 and Item 7, which is labeled as Figure 8, show the geologic structure. Figure 6-2 cannot be found.

10. Section 6.4.6, Page 6-6

See Plate 6-2.

This Plate cannot be found.

11. Section 6.5.6.1, Page 6-6

Appendix 6-1 shows the results of several samples taken from the floor and roof of the coal seam.

Appendix 6, Item 1, is a generalized stratigraphic section. Appendix 6, Item 8, contains the results of the discussed testing. This reference must be corrected.

12. Section 7.2.4, Page 7-32

See Item 10 in our letter to OSM, dated November 5, 1986, in response to the Tract 1 Mid-Term Review. Since Genwal Coal Company diverts water from Crandall Creek for mine use, they must assure that minimum instream flows are allowed to flow beyond their point of diversion.

The water usage on the road for dust suppression has been reduced by treatment with magnesium chloride. The 12,000 gallon per day usage has been reduced. This section should be revised accordingly.

13. Section 9.5, Page 9-3

Sensitive plant *Hedysarum occidentale* var. *canone* has been located adjacent to the permit area and may, in fact, be in the permit area. This plant was not addressed in the Tract 1 Mine and Reclamation Plan.



REED C. CHRISTENSEN
Forest Supervisor

Enclosure



IN REPLY REFER TO

United States Department of the Interior

FISH AND WILDLIFE SERVICE

ENDANGERED SPECIES OFFICE

2078 ADMINISTRATION BLDG.

1745 WEST 1700 SOUTH

SALT LAKE CITY, UTAH 84104

January 7, 1987

SE/SLC: 6-5-87-F-003

MEMORANDUM

TO: Chief, Biological Sciences Branch, Office of Surface Mining
Denver, CO

FROM: Field Supervisor, Endangered Species Office, U.S. Fish and Wildlife
Service, Salt Lake City, UT

SUBJECT: Section 7 Consultation and Biological Opinion, Genwal Coal Company,
Crandall Canyon Mine

This is in response to your November 20, 1986 biological assessment and request for formal consultation and December 9, 1986 supplement regarding Genwal Coal Company's (Genwal's) proposal to expand its underground Crandall Canyon Mine near Huntington, Emery County, Utah. The Federal action triggering consultation is the Office of Surface Mining's proposed approval of the mine plan. We are providing this biological opinion as prescribed by Section 7 of the Endangered Species Act (ESA), 16 U.S.C. 1531 et seq., and the Interagency Cooperation Regulations, 50 CFR 402.

BIOLOGICAL OPINION

The issuance of a permit to allow expansion of the Crandall Canyon Mine, with the inclusion of conservation measures outlined below, is not likely to jeopardize the continued existence of the Colorado squawfish (Ptychocheilus lucius), humpback chub (Gila cypha) or the bonytail chub (Gila elegans).

The bonytail chub, an endangered species which may occur in the area, should have been mentioned when you verified the species list for this project, and will be included in this biological opinion.

PROJECT DESCRIPTION

The Office of Surface Mining intends to approve a proposal by Genwal to expand its operation of the Crandall Canyon Mine located 13 miles northeast of Huntington, Utah. This is an existing underground mine, and no additional surface disturbance will occur. Based on calculations by the Office of Surface Mining, the proposed action will result in a net average annual water depletion of 4.5 acre-feet from Crandall Creek for dust suppression and 0.3 acre-feet evaporative loss from a sediment pond. Conservation measures, outlined later in this document, are necessary to offset the likelihood of jeopardy for federally listed fishes which may be impacted by project-related water depletions.

BASIS FOR OPINION

COLORADO SQUAWFISH

Early records indicate that the Colorado squawfish was once abundant throughout the Colorado River system. It was abundant over all of its range prior to the 1850's (Seethaler, 1978). The present range of the Colorado squawfish is restricted to the Upper Colorado River Basin (Upper Basin). It is found inhabiting about 345 miles of the mainstem Green River from the mouth of the Yampa River downstream to the confluence of the Green and Colorado Rivers. Its range also extends 140 miles up the Yampa River and 156 miles up the White River, the two major tributaries of the Green River. In the mainstem Colorado River, it is currently found from Lake Powell upstream about 201 miles to Palisade, Colorado, and in the lower 33 miles of the Gunnison River, a tributary to the mainstem Colorado River (Fish and Wildlife Service 1982). Decline of the populations of the Colorado squawfish correlates very closely with the construction of dams and reservoirs and the removal of water from the Colorado River system. Colorado squawfish evolved in and apparently require stream habitat conditions typified by great seasonal fluctuations in flow and turbidity, coupled with warmer water temperatures in the summer. Additionally, it appears that squawfish require an extensive range to satisfy all of their life history requirements. Movement of adult squawfish appears to be related to flow, temperature, feeding and spawning behavior. The life stages that appear to be most critical are from egg fertilization through its first year of life. It has been demonstrated that these phases of Colorado squawfish development are closely tied to some specific habitat requirements making it imperative that proper flows and temperatures are provided during this period. The conservation measures outlined below will help further determine and preserve the habitat requirements of the Colorado squawfish, thus offsetting project-related impacts and the likelihood of jeopardy for the species.

HUMPBACK CHUB

Humpback chub generally do not migrate extensively in the upper Colorado River but tend to reside throughout the year within a limited reach of river. Humpback chub are found inhabiting narrow, deep canyon areas, and are relatively restricted in distribution (Fish and Wildlife Service 1982). Presently the only major populations of humpback chub known to exist in the Upper Colorado River Basin are located in Black Rocks and Westwater Canyons on the Colorado River but they are frequently found throughout the Green River system upstream to the Yampa River confluence. Conservation measures outlined below will contribute to providing proper habitat conditions for humpback chub, thus offsetting the likelihood of jeopardy for the species.

BONYTAIL CHUB

Little is known about the biological requirements of the bonytail chub, as the species greatly declined in numbers in the Upper Basin shortly after 1960. The last known stronghold for bonytail chub was at the confluence of the Yampa River with the Green River. Until recently, the Fish and Wildlife Service (Service) considered the species extirpated from the Upper Basin; however, a recently collected specimen which exhibits many bonytail characteristics could indicate a small, extant population. It is thought that, should this species persist in the Colorado River, the preferred habitat would be larger river reaches in the Colorado River. Conservation measures outlined below will contribute to conservation efforts for the bonytail chub, thus offsetting the likelihood of jeopardy for the species.

CONSERVATION MEASURES

The Service believes that any further water depletions from the Upper Colorado River Basin may have detrimental effects on listed fishes. However, it is believed that certain management techniques can be implemented to offset harmful effects from additional development, particularly in the case of small depletions such as this. Impacts resulting from small water developments may be subtle, but harmful in a cumulative sense.

Depletions that bring present day flows down to lower levels can occur if enhancement measures developed through active research and management programs are carried out. The Service has identified certain conservation measures that are currently considered necessary to assure survival of the fish and contribute toward their conservation. These measures include monitoring known populations and attempting to locate new areas containing the fish; further analyzing the potential effects of water depletions and associated flow regime alterations, locating existing and potential spawning and rearing areas; researching and constructing various fish passage and habitat restoration features; and producing fish in a hatchery facility for research and restocking of historical habitat.

Since such measures will develop critically important data on the survival needs of the fish, attempt to define essential habitat, and allow a conservation program to be implemented, funding of these activities by project sponsors is considered a reasonable and prudent alternative designed to compensate for or avoid the adverse effects of water depletion. Under a procedure developed by the Service, Upper Basin project sponsors are assessed a proportion of the total cost needed to support these conservation measures, currently estimated at approximately 25 million dollars.

The cost assessed any particular project is based upon the amount of water that the project would annually deplete from the Upper Basin in proportion to the amount available for development. It has been estimated by the Bureau of Reclamation that a total of 1.906 million acre-feet (Maf) remains available for development in the Upper Basin under the Colorado River Compact. Of this amount, 231,000 acre-feet are allocated to Arizona and New Mexico and will eventually be diverted from the San Juan River and would not affect currently occupied habitat in the Colorado River and Green River sub-basins. This leaves 1.675 Maf in the Upper Basin as the value against which a project's depletions are assessed to calculate the project sponsors contribution to the conservation program. Based upon the average depletion estimate of 4.8 acre-feet per year for the Crandall Canyon Mine expansion, the amount to be contributed to the conservation program would not exceed \$72.00. This contribution will offset the impacts of the project depletion of water to listed fishes and will avoid jeopardy for these species.

A contribution for implementing conservation measures for the endangered Colorado River fishes in the amount of \$72.00 has been received by the Service from the Genwal Coal Company. This fulfills their responsibilities and those of the Office of Surface Mining as required by Section 7 of the Act, as amended; this biological opinion completes the consultation for the Crandall Canyon Mine expansion. Please send us a copy of the permit when it is finalized.

The Service believes that the implementation of conservation measures made possible by your contribution to the conservation fund should result in an incidental take of zero for the proposed action for the Colorado squawfish, humpback chub and bonytail chub.

Should there be any changes in the amount of water depletion (4.8 acre-feet on an average, annual basis) or any other project change from that which was described that may affect any endangered or threatened species, or if there is failure to comply with the conservation measures outlined above, then the the Service should be contacted to determine if further consultation is required.

cc: Genwal Coal Company

Robert H. Ruesink

REFERENCES

- Seethaler, K. 1978. Life History and Ecology of the Colorado Squawfish (*Ptychocheilus lucius*) in the upper Colorado River basin. Thesis, Utah State University. Logan, Utah.
- U.S. Fish and Wildlife Service. 1982. Colorado River Fishery Project Final Report Part I (42 pp), Part II (356 pp), and Part III (324 pp). Prepared for the U.S. Bureau of Reclamation, Salt Lake City, Utah.

RECEIVED

OCT 2 1984

September 27, 1984

DIVISION OF OIL
& GAS & MINING



SCOTT M. MATHESON
GOVERNOR



STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101-1182
TELEPHONE 801/533-5755

James W. Smith, Jr.
Administrator
Mineral Resource Development
And Reclamation Program
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 841114

Attn: D. Wayne Hedberg

RE: Permit Application for Genwal Coal Company's Crandall Canyon Mine,
Lease Tract #2, ACT/015/032, Folder No. 2, Emery County

In Reply Refer To Case No. H407

Dear Mr. Smith:

The Utah Preservation Office has received your letter of September 12, 1984, regarding the permit application for the Genwal Coal Company's Crandall Canyon Mine, Lease Tract #2.

After review of the documentation provided concerning cultural resources in the project area, our office would advise the Division of Oil, Gas & Mining that the approved Forest Service report would be adequate to include as evidence of a survey being completed of the project area, and that this report is complete and could be transmitted to the Office of Surface Mining.

Since no formal consultation request concerning eligibility, effect or mitigation as outlined by 36 CFR 800 was indicated by you, this letter represents a response for information concerning location of cultural resources. If you have any questions or concerns, please contact me at 533-7039.

Sincerely,

James L. Dykman
Cultural Resource Advisor
Office of State Historic
Preservation Officer

JLD:jrc:H407/0885V

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT

This permit, UT-0067, which incorporates Utah State Permit ACT/015/032, is issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to

Genwal Coal Company
P.O. Box 1201
Huntington, Utah 84528

for the Crandall Canyon Mine mine. Genwal Coal Company is the lessee of Federal coal lease SL-062648.

Sec. 1 STATUTES AND REGULATIONS - This permit is issued pursuant to the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201 et seq., hereafter referred to as SMCRA, and the Federal coal lease issued pursuant to the Mineral Leasing Act of 1920, as amended, 30 U.S.C. 181 et seq., the Federal Coal Leasing Amendments Act of 1976, as amended 30 U.S.C. 201 et seq. and in the case of acquired lands, the Mineral Leasing Act for Acquired Lands of 1947, as amended, 30 U.S.C. 351 et seq. This permit is also subject to all regulations of the Secretary of the Interior including, but not limited to, 30 CFR Chapter VII and 43 CFR Part 3400, and to all regulations of the Secretary of Energy promulgated pursuant to Section 302 of the Department of Energy Organization Act of 1977, 42 U.S.C. 7152, which are now in force or, except as expressly limited herein, or hereafter in force.

Sec. 2 The permittee is authorized to conduct surface coal mining and reclamation operations on Federal lands within the permit area, situated in the State of Utah, Emery County, and located within:

W1/2NW1/4, Part of the SW1/4SE1/4NW1/4, and Part of the N1/2NW1/4SW1/4 of Section 5 and E1/2NE1/4 of Section 6, Township 16 South, Range 7 East, SLBM;

as shown on the map appended hereto as Attachment B; subject to the conditions of the lease, the approved mining plan, and all other applicable conditions, laws, and regulations.

Sec. 3 This permit will expire on May 13, 1988.


- Sec. 4 The permit rights may not be transferred, assigned, or sold without the approval of the Director, OSMRE. Request for transfer, assignment, or sale of permit rights must be done in accordance with 30 CFR 740.13(e) and UMC 788.18.
- Sec. 5 The permittee shall allow the authorized representatives of the Secretary, and the Utah Division of Oil, Gas and Mining, including but not limited to inspectors and fee compliance officers, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay to:
- a. Have the rights-of-entry provided for in 30 CFR 842.13 and UMC 840.12 and 842.13; and,
 - b. Be accompanied by a private person for the purpose of conducting an inspection in accordance with 30 CFR 842.12 and UMC 842.12, when the inspection is in response to an alleged violation reported by the private person.
- Sec. 6 The permittee shall conduct surface coal mining and reclamation operations only on those lands specifically designated as being within the permit area on the maps submitted in the permit application and approved for the term of the permit and which are subject to the performance bond.
- Sec. 7 The permittee shall minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of this permit by including, but not being limited to:
- a. Accelerated monitoring to determine the nature and extent of noncompliance and the results of the noncompliance;
 - b. Immediate implementation of measures necessary to comply; and
 - c. Warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance.
- Sec. 8 The permittee shall dispose of solids, sludge, filter backwash, or pollutants removed in the course of treatment or control of waters or emissions to the air in the manner required by the approved Utah State Program and the Federal Lands Program which prevents violation of any applicable State or Federal law.

- Sec. 9 The permittee shall conduct its operations:
- a. In accordance with the terms of the permit to prevent significant, imminent environmental harm to the health and safety of the public; and
 - b. Utilizing methods specified as conditions of the permit by Utah Division of Oil, Gas and Mining and OSMRE, the approved Utah State Program, and the Federal Lands Program.
- Sec. 10 The permittee shall provide OSMRE the names, addresses, and telephone numbers of persons responsible for operations under the permit to whom notices and orders are to be delivered.
- Sec. 11 Upon expiration, this permit may be renewed for areas within the boundaries of the existing permit in accordance with SMCRA, the approved Utah State Program and the Federal Lands Program.
- Sec. 12 If during the course of mining operations previously unidentified prehistoric or historic resources are discovered, the permittee shall ensure that the resource(s) is not disturbed and shall notify the Utah Division of Oil, Gas and Mining and OSMRE. The Utah Division of Oil, Gas and Mining, after coordination with OSMRE shall inform the permittee of necessary actions required.
- Sec. 13 The operator shall pay all reclamation fees required by 30 CFR Chapter VII, Subchapter R for coal produced under this permit.
- Sec. 14 APPEALS - The permittee shall have the right to appeal: (a) under 30 CFR 775, 842, 843 or 845 from an action or decision of any official of OSMRE; (b) under 43 CFR 3000.4 from an action or decision of any official of the Bureau of Land Management; (c) under 30 CFR 290 from an action, order, or decision of any official of the Minerals Management Service; or (d) under applicable regulations from any action or decision of any other official of the Department of the Interior arising in connection with this permit.

Sec. 15 SPECIAL CONDITIONS - The permittee shall comply with the terms and conditions set out in the lease, Utah permit ACT/015/032, and this permit. In addition, the permittee shall comply with the conditions appended hereto as Attachment A. These conditions are also imposed upon the permittee's agents, contractors, subcontractors, and employees. The failure or refusal of any of these persons to comply with these conditions shall be deemed a failure of the permittee to comply with the terms of this permit and the lease. In accordance with 30 CFR Part 774, these conditions may be revised or amended, in writing, by the mutual consent of the grantor and the permittee at any time to adjust to changed conditions or to correct an oversight. The grantor may, by order, require reasonable revisions of this permit to ensure compliance with SMCRA and the regulatory program.

OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT

By:


Chief, Division of Federal Programs
Western Field Operations

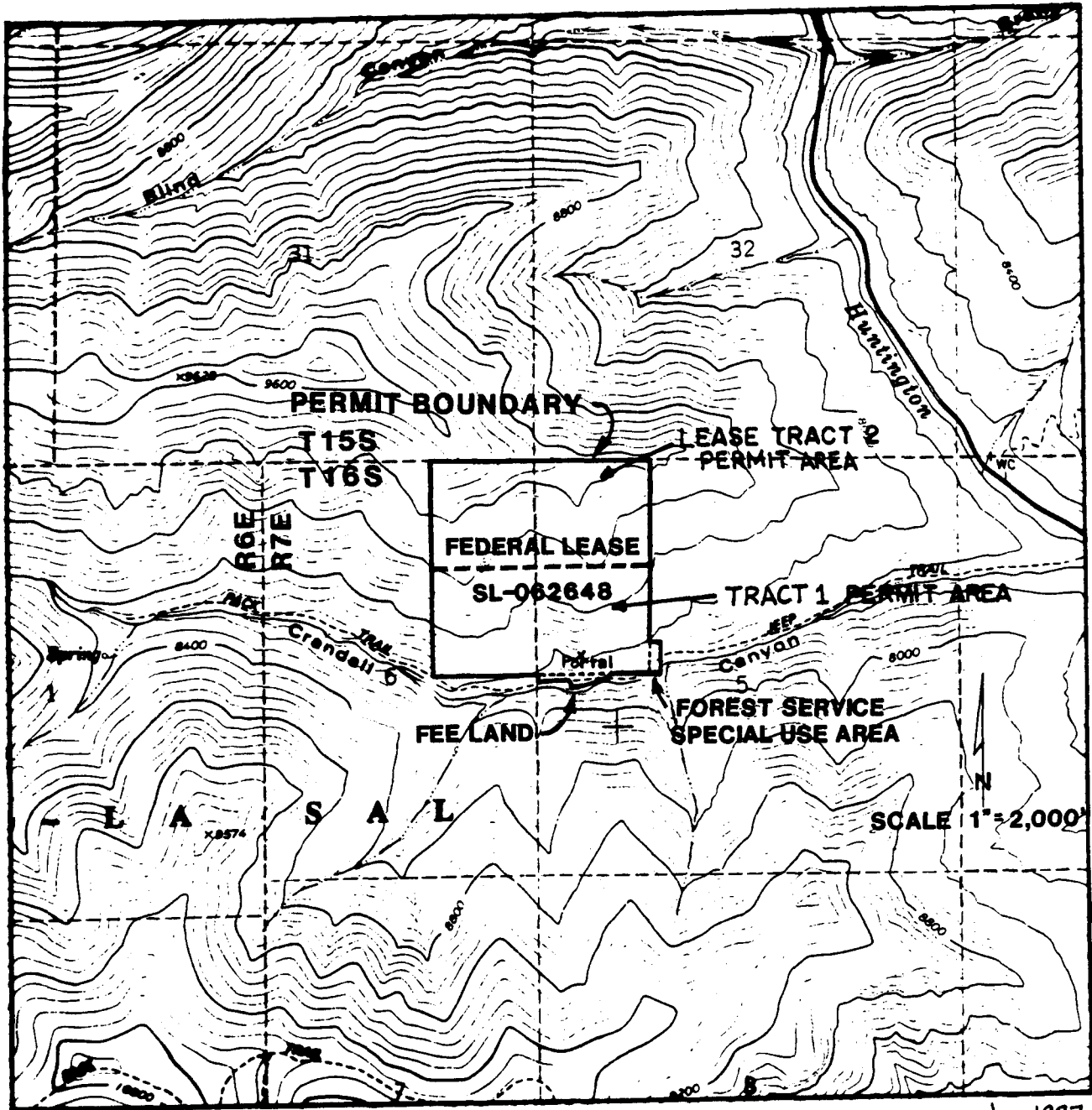
Date

2/12/87

ATTACHMENT A
SPECIAL CONDITIONS

1. Within 60 days of permit issuance, the permittee must finalize a mitigation plan for potentially impacted seeps and springs that is acceptable to the DWR and submit this plan to Utah DOGM for review and approval.
2. Within 60 days of permit issuance, the permittee must submit to Utah DOGM for approval the appropriate number of copies of the corrections to the mining and reclamation plan identified by the U.S. Forest Service, Manti-LaSal National Forest in its letter to OSMRE dated December 1, 1986.

ATTACHMENT B



CRANDALL CANYON MINE

EMERY COUNTY, UTAH



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

WESTERN TECHNICAL DECISION
OCT 14 11 09 27

October 3, 1986

Mr. Allen Klein, Administrator
Office of Surface Mining
Brooks Towers
1020 15th Street
Denver, Colorado 80202

Dear Mr. Klein:

Re: Final Technical Analysis and Decision Document, Genwal Coal
Company, Crandall Canyon Mine, Tract 2, ACT/015/032, Emery
County, Utah

Enclosed is Utah's Final Technical Analysis (TA) and Decision Document for Tract 2 of the Crandall Canyon Mine, an addition to an already permitted mine. Since the Tract 2 addition will be mined as an underground extension of the existing mine and no additional surface disturbance will occur, the Division has done an abbreviated TA, analyzing compliance with only those sections of the performance standards which are pertinent to the applicant's proposal.

The Division has found that, with the addition of one stipulation, the applicant's proposal is adequate to comply with the requirements of the Utah Program and SMCRA. We request that OSM concur with this assessment and forward the package to Washington for approval.

Best regards,

Dianne R. Nielson
Director

SCL:jvb
cc: R. Holbrook
A. King
L. Braxton
S. Linner
J. Leatherwood

0028R-64

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Bureau of Land Management, Solid Minerals and Mining Law
Utah Division of Wildlife Resources

0682R

FINDINGS

Genwal Coal Company
Crandall Canyon Mine
Tract 2
ACT/015/032
Emery County, Utah

October 3, 1986

1. The application for the Tract 2 permit area, updated through January 7, 1986 is accurate and complete and all requirements of the Surface Mining Control and Reclamation Act, and the Utah State program have been complied with (as required by UMC 786.19(a)).
2. The DOGM has performed a Technical Analysis (TA) and concluded that:
 - A. No additional surface reclamation is required since the additional permit area will be mined as an underground extension of the existing mine. There will be no new surface facilities (UMC 786.19[b]).
 - B. A cumulative hydrologic impacts assessment by DOGM for the Tract 2 permit area reveals that the operations have been designed to prevent damage to the hydrologic balance outside the permit area (see Cumulative Hydrologic Impact Assessment [CHIA] attached). The details of the type and extent of impacts are included in the CHIA (UMC 786.19[c]).
3. After reviewing the description of the proposed permit area and the application (Sections 1.2 and 2.5), the DOGM has determined that the area is:
 - A. Not included within an area designated unsuitable for coal mining operations.
 - B. Not within an area under study for designating lands unsuitable for coal mining operations.
 - C. Not on any land subject to the prohibitions or limitations of 30 CFR 761.11(a) (national parks, etc.), 761.11(f) (public buildings, etc.) and 761.11(g) (cemetery).
 - D. Not within 100 feet of the outside right-of-way of public roads.
 - E. Not within 300 feet of an occupied building (UMC 786.19[d]).

4. The issuance of a permit and the Secretarial decision on the Mineral Leasing Act plan are in compliance with the National Historic Preservation Act and implementing regulations (October 2, 1984 letter from SHPO, and personal communication, Jim Dykman, Division of State History, February 14, 1986) (UMC 786.19[e]).
5. The applicant has the legal right to enter and begin underground mining activities in the new permit area. The applicant has provided information required by UMC 782.15(b) (MRP Section 2.4) (UMC 786.19[f]).
6. The applicant has submitted proof and the DOGM records indicate that prior violations of applicable laws and regulations have been corrected (DOGM NOV/CO Status Report, personal communication, Joe Helfrich, September 9, 1986) (UMC 786.19[g]).
7. The OSM records confirm that all fees for the Abandoned Mine Reclamation Fund have been paid (personal communication, John Sender, OSM Fee Compliance Officer, September 10, 1986) (UMC 786.19[h]).
8. The DOGM records show that the applicant does not control and has not controlled mining operations with a demonstrated pattern of willful violations of the Act of such nature, duration and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of the Act (personal communication, Joe Helfrich, September 9, 1986) (UMC 786.19 [i]).
9. Coal mining and reclamation operations to be performed under the permit will not be inconsistent with other underground mines in the general vicinity. The only adjacent mine is the Huntington #4 Mine which has been closed and reclaimed (UMC 786.19 [j]).
10. The applicant has posted a surety bond for the Crandall Canyon Mine in the amount of \$136,729.00. No additional Surety will be required for this modification since there is no additional surface disturbance proposed (UMC 786.19[k]). The bond is currently being updated based on the Tract 1 mid-term review.
11. The applicant has provided evidence and the DOGM has found that there are no prime farmlands in the permit area (MRP Section 2.5) (UMC 786.19[l]).
12. The DOGM has determined that there are no Alluvial Valley Floors (AVF) existing within the proposed permit area. There are no AVF's which may be negatively impacted by mining of Tract 2 (UMC 786.19[1]).

13. The proposed postmining land-use for the permit area has been approved by the DOGM and is the same as the premining land use (UMC 786.19[m]).
14. All specific approvals required by the Act, the Utah State Program and the Federal Lands Program have been made (UMC 786.19[n]).
15. The proposed operation will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. No additional surface disturbance will occur (UMC 786.19[o]).
16. All procedures for public participation required by the Act, and the approved Utah State Program have been complied with (UMC 786.23[a][2]).

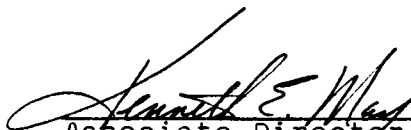
Prior to the permit taking effect, the applicant must forward a letter stating its acceptance of the special stipulation in the permit.




Permit Supervisor



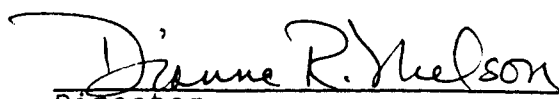
Administrator, Mineral Resource
Development and Reclamation Program



Associate Director
Division of Oil, Gas and Mining



Approved as to Form
Assistant Attorney General



Director
Division of Oil, Gas and Mining

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Genwal Coal Company
Crandall Canyon Mine
Tract 2
ACT/015/032
Emery County, Utah

November 26, 1986

I. Introduction

The purpose of this report is to provide a Cumulative Hydrologic Impact Assessment (CHIA) for Genwal Coal Company's Crandall Canyon Mine located in Emery County, Utah. The assessment encompasses the probable cumulative impacts of all anticipated coal mining in the general area on the hydrologic balance and a determination of whether the operations proposed under the application have been designed to prevent damage to the hydrologic balance outside the proposed mine plan area. This report complies with federal legislation passed under the Surface Mining Control and Reclamation Act (SMCRA) and subsequent Utah and federal regulatory programs under UMC 786.19(c) and 30 CFR 784.14(f), respectively.

Genwal Coal Company's Crandall Canyon Mine is located along the eastern margin of the Wasatch Plateau Coal Field approximately 15 miles west of Huntington, Utah (Figure 1). The eastern margin of the Wasatch Plateau forms a rugged escarpment that overlooks Castle Valley and the San Rafael Swell to the east. Elevations along the eastern escarpment of the Wasatch Plateau range from approximately 6,500 to over 9,000 feet.

Outcropping rocks of the Wasatch Plateau Coal Field range from Upper Cretaceous to Quaternary in age. The rock record reflects an overall regressive sequence from marine (Mancos Shale) through littoral and lagoonal (Blackhawk Formation) to fluvial (Castlegate Sandstone, Price River Formation and North Horn Formation) and lacustrine (Flagstaff Formation) depositional environments. Oscillating depositional environments within the overall regressive trend are represented by lithologies within the Blackhawk Formation. The major coal-bearing unit within the Wasatch Plateau Coal Field is the Blackhawk Formation.

Precipitation varies from 40 inches at higher elevations to less than 10 inches at lower elevations. The Wasatch Plateau may be classified as semiarid to subhumid.

Vegetation varies from the Sagebrush/Grass community type at lower elevations to the Douglas Fir/Aspen community at higher elevations. Other vegetative communities include Mountain Brush, Pinyon-Juniper, Pinyon-Juniper/Sagebrush and Riparian. These communities are primarily used for wildlife habitat and livestock grazing.

Crandall Canyon Creek which flows past the Crandall Canyon Mine is a perennial tributary to Huntington Creek which is a tributary to the San Rafael River. The upper drainage of Huntington Creek encompasses about 200 square miles of mountainous country in the Wasatch Plateau. About 90 percent of the area is higher than 8,000 feet. The average channel gradient along Huntington Creek is about 100 feet per mile. The lower reaches of the tributaries to Huntington Creek typically have surface relief between the stream channels and tops of adjacent canyon walls of 2,000 feet or more.

II. Cumulative Impact Area (CIA)

Figure 2 delineates the current Crandall Canyon Mine operations and CIA. The CIA includes the Crandall Canyon drainage and a portion of Huntington Creek. The CIA boundary is defined on the north, south and west by the Crandall Canyon drainage divide and on the east by Huntington Creek. A first level analysis was conducted using these boundaries to determine hydrologic impacts. Completion of the review at this level indicated that cumulative hydrologic impacts did not exist within these limits. Therefore, further analysis was not conducted beyond these limits and the CIA was determined to be complete. The CIA encompasses approximately 4,565 acres.

III. Scope of Mining

Genwal Coal Company controls approximately 162 acres in Emery County, Utah, 77.53 acres of which is covered in this new permit application and will be referred to as Tract 2. Mining was conducted historically near this site from November, 1939 to September 1955. Mining in Tract 1 began in 1983. Approximately 811,000 tons of coal in place are estimated to exist in the Hiawatha Seam within the Tract 2 area. Production during the first year will be approximately 327,000 tons, with the estimated life of this permit being less than two years.

Access to the Tract 2 area will be by extending the existing Tract 1 North Main entries into the new permit area. All existing surface facilities on Tract 1 will be utilized to mine the Tract 2 permit area and no new surface facilities will be constructed. Existing surface breakouts from the seam in Tract 1 for ventilation and haulage are made in Crandall Canyon and will be utilized for Tract 2 as well.

The current method of room and pillar mining in use on Tract 1 will be continued into Tract 2. Pillars will be removed upon abandonment of sections. Overall, an advance-retreat mining system is projected for Tract 2 with retreat mining employed prior to abandonment of each section.

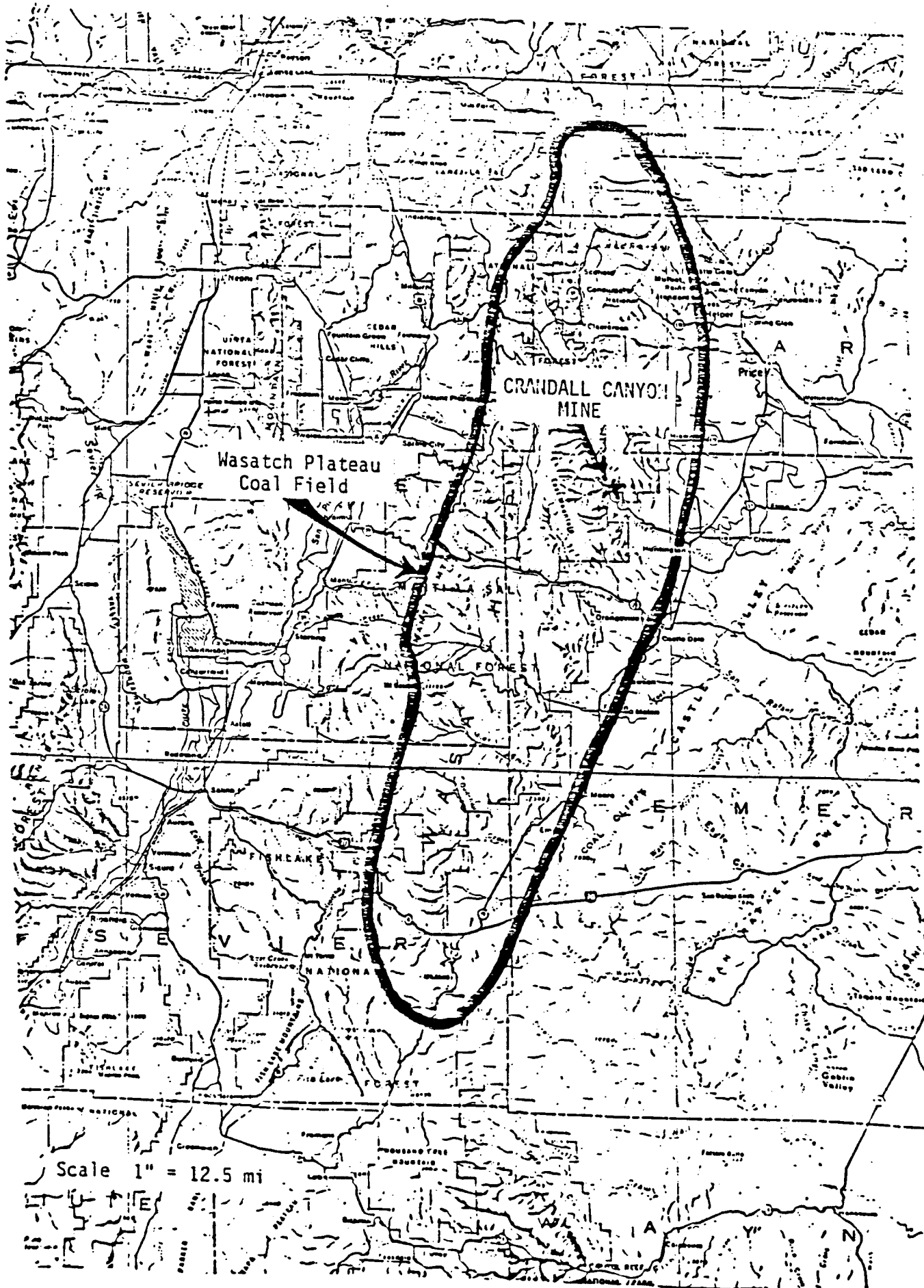


Figure 1. Wasatch Plateau Coal Field

The entire permit area, including the proposed Tract 2 area, is comprised of coal lands leased by Genwal Coal Company from the United States Bureau of Land Management (BLM), under lease SL-062648. The surface lands are controlled by the United States Forest Service, Manti-LaSal National Forest.

The amount of reserves within the permit area is mineable within two years, however, access will be maintained through this permit area until all future reserves to the northwest and west are mined. Genwal Coal Company received an emergency lease from the BLM for an additional 256 acres this spring (Lease U-54762).

IV. Study Area

A. Geology

The formations exposed in the Wasatch Plateau are Tertiary and Cretaceous-aged sedimentary units. These formations are of both continental and marine origin and are comprised principally of shale and sandstone. Siltstone, mudstone and limestone occur in lesser amounts. The formations in the Wasatch Plateau area generally dip one to three degrees westward off the west flank of the San Rafael Swell. Superimposed over the region are numerous synclines, anticlines and fault zones. The syncline and anticline areas have predominant east-west orientation, while the fault zones are generally oriented north-south.

Stratigraphic units outcropping within the study area include, from oldest to youngest, the Masuk Shale Member of the Mancos Shale, Starpoint Sandstone, Blackhawk Formation, Castlegate Sandstone, Price River Formation, North Horn Formation and Quaternary deposits. Lithologic descriptions and unit thicknesses are shown in Figure 3.

The Hiawatha Coal Seam, which is the coal seam to be mined in the Tract 2 area, occurs at the base of the Blackhawk Formation. The Hiawatha Coal Seam has been mined in the Tract 1 Lease and is exposed at an approximate elevation of 7900 feet. Maximum overburden is approximately 1500 feet in the northwest corner of the Tract 2 permit area with an average overburden of approximately 800-900 feet. The entire permit area is underlain by the Starpoint Sandstone.

B. Topography and Precipitation

Topography in the area is generally very steep and rugged with elevations ranging from approximately 7,200 feet to over 10,000 feet above sea level. Slopes vary from vertical cliffs to less than 2 percent. The CIA is characterized by Crandall Canyon Creek, which originates above 10,000 feet and drains east into Huntington Creek. The CIA also includes an unnamed ephemeral drainage to the west of the permit area that also drains to the east into Huntington Creek.

System	Series	Stratigraphic Unit	Thickness (feet)	Lithology and water-bearing characteristics
Quaternary	Holocene and Pleistocene	Quaternary deposits	0-100	Alluvium and colluvium; clay, silt, sand, gravel, and boulders; yields water to springs that may cease to flow in late summer.
Tertiary	Paleocene	North Horn Formation	800±	Variegated shale and mudstone with interbeds of tan-to-gray sandstone; all of fluvial and lacustrine origin; yields water to springs.
Cretaceous	Upper Cretaceous	Price River Formation	600-700	Gray-to-brown, fine-to-coarse, and conglomeratic fluvial sandstone with thin beds of gray shale; yields water to springs locally.
		Castlegate Sandstone	150-250	Tan-to-brown fluvial sandstone and conglomerate; forms cliffs in most exposures; yields water to springs locally.
		Blackhawk Formation	600-700	Tan-to-gray discontinuous sandstone and gray carbonaceous shales with coal beds; all of marginal marine and paludal origin; locally scour-and-fill deposits of fluvial sandstone within less permeable sediments; yields water to springs and coal mines, mainly where fractured or jointed.
		Star Point Sandstone	350-450	Light-gray, white, massive, and thin-bedded sandstone, grading downward from a massive cliff-forming unit at the top to thin interbedded sandstone and shale at the base; all of marginal marine and marine origin; yields water to springs and mines where fractured and jointed.
		Mancos Shale	600-800	Dark-gray marine shale with thin, discontinuous layers of gray limestone and sandstone; yields water to springs locally.

Figure 3. Stratigraphy of the Crandall Canyon Mine Area (modified from Danielson, et al 1981).

Precipitation in the Wasatch Plateau ranges from 10 inches to 40 inches annually. Average annual precipitation in the CIA is approximately 20 inches (Simons 1984).

C. Vegetation

There are six vegetative communities in the CIA including Sagebrush, Mountain Shrub/Grassland, Mixed Mountain Shrub, Pinyon/Juniper, Conifer/Aspen and Spruce/Fir. Aspen are found on the north facing south slopes and higher up on the north slopes, on ridge tops. Spruce/Fir is also found on the north slopes and appears to be tied to both a moister site as well as areas with less sunlight. Mixed Mountain Shrub and Mountain Shrub/Grassland appear to be transitional and are predominant on the open exposed ridges at approximately mid-slope. The Sagebrush community follows primarily along the ridges and is more than likely climax in nature to the shrub/grass associations.

V. Hydrologic Resources

A. Ground Water

The principle factor controlling the occurrences and availability of ground water in any area is geology. The ground water regime within the CIA is dependent upon geologic and climatic parameters that establish systems of recharge, movement and discharge.

Snowmelt at higher elevations provides most of the groundwater recharge, particularly where permeable lithologies or faults/fractures are exposed at the surface. Vertical migration of ground water occurs through permeable rock units and/or along zones of faulting and fracturing. Lateral migration initiates when ground water encounters impermeable rocks and continues until either the land surface is intersected (and spring discharge occurs) or other permeable lithologies or zones are encountered that allow further vertical flow.

A seep and spring survey conducted by Earthfax Engineering in June and October of 1985 revealed the following information concerning the geology and aquifer characteristics in the vicinity of the mine.

Six formations outcrop in and adjacent to the Tract 2 area. According to Doelling (1972), the Masuk Shale Member of the Mancos Shale is a light gray to blue-gray marine sandy shale in the mine vicinity. This unit is exposed at the mouth of Crandall Canyon and in adjacent areas along Huntington Creek. The Masuk Shale Member yields water locally to seeps and springs but does not serve as a regionally important aquifer (Danielson et al., 1981).

The Star Point Sandstone is predominantly a light gray massive sandstone with minor interbedded layers of shale and siltstone near its base (Doelling, 1972). In the vicinity of the mine, the Star Point Sandstone is approximately 300 feet thick. The Star Point serves as an important regional aquifer (Danielson et al., 1981), yielding water to several minor and some major springs where fractured and jointed.

The Blackhawk Formation is the principal coal-bearing unit in the region (Doelling, 1972). This formation consists of interbedded layers of sandstone, siltstone, shale, and coal, all of marine origin. The Blackhawk is approximately 700 feet thick in the mine area, with the principal coal seam (the Hiawatha seam) occurring near the bottom of the formation. The formation yields water to springs and coal mines when fractured. Where it is locally interbedded with the Star Point Sandstone, the lower portion of the Blackhawk Formation is considered an aquifer (Danielson et al., 1981).

The Castlegate Sandstone overlies the Blackhawk Formation and consists of tan to brown cliff-forming sandstones of fluvial origin. The sandstones are massive and medium- to coarse-grained. In the area of the mine, the Castlegate yields water locally to seeps and springs but does not serve as an important regional aquifer because it is commonly drained within short distances from its recharge area due to deeply incised canyons (Danielson et al., 1981).

The Price River Formation consists predominantly of friable limy sandstone interbedded with pebbly conglomerates and shales. It forms steep receding slopes and reaches a maximum thickness of about 500 feet in the mine area (Doelling, 1972). This formation yields water locally to seeps and springs (Danielson et al., 1981). However, like the Castlegate Sandstone, deeply incised canyons in the area prevent the Price River Formation from being an important regional aquifer.

The uppermost formation that outcrops within the area adjacent to the mine plan area is the North Horn Formation. This formation consists of interbedded limestones, sandstones, and shales (Doelling, 1972). Due to high topographic presence, the North Horn Formation in the CIA serves primarily as a recharge unit to underlying formations rather than as an important source of water itself.

Investigations by Danielson et al. (1981) indicated that most, if not all, ground water in the region is derived from snowmelt. Recharge tends to be limited in areas underlain by the Price River Formation and older rocks (relative to recharge in areas underlain by younger rocks) due to slope steepness and relative imperviousness (both of which promote runoff rather than infiltration of snowmelt).

Detailed potentiometric surface data are not available for the CIA, however, the deeply incised canyons interrupt the flow of ground water in much of the area. Danielson et al. (1981) suggest that groundwater generally moves from high areas of recharge to low areas of drainage, principally along stream channels. This flow pattern is altered locally where geologic structure plays a dominant role.

The predominant chemical constituents in most springs in the region are calcium and bicarbonate (Danielson et al., 1981). Dissolved solids concentrations generally range from about 50 to 750 milligrams per liter. Regionally, the concentrations of major dissolved constituents in water from individual geologic units is highly variable, due to the complex lithologic nature of the area (Danielson et al., 1981).

Over 50 percent of the seeps and spring discovered during the June inventory issued from the Blackhawk Formation. However, flow rates at these points were normally minimal (less than one gallon per minute), with seepage issuing predominantly at the interface between sandstone lenses above and less permeable shale layers below. Most of these seeps and springs had dried up prior to the October survey. Useage at these points of seepage is minimal, due to the low flow rate and inaccessibility of the seeps.

The low seepage rates measured in most of the seeps and springs issuing from Blackhawk Formation are due to the low hydraulic conductivity of the formation in its unfractured state. Laboratory permeability data provided by Lines (1985) from a core sample collected in Section 27, T. 17 S., R. 6 E. (approximately 10 miles south of the mine permit area) indicate that sandstone units within the Blackhawk Formation have an average horizontal hydraulic conductivity of 1.3×10^{-2} feet per day and an average vertical hydraulic conductivity of 3.8×10^{-3} feet per day. Shales and siltstones within the Blackhawk Formation were found to have maximum horizontal and vertical hydraulic conductivities of 1.0×10^{-7} and 1.2×10^{-6} feet per day, respectively.

The relatively large hydraulic conductivity of the sandstones of the Blackhawk Formation compared with the siltstone and shales indicates that the fine grained sediments of the formation serve as barriers to the downward movement of water. In simple terms, as water recharges the Blackhawk Formation (either through snowmelt, rainfall, or subsurface seepage from an adjacent formation), it is permitted to percolate downward within the sandstone beds. However, upon reaching a less permeable siltstone or shale layer, the water is forced to flow horizontally to the surface, issuing at the interface between the two units.

Notable exceptions to the above generality concerning the Blackhawk Formation occur at a few springs that issue from fractured sandstone within the formation. Examples of this phenomenon were found in the western portion of the survey area, where flow rates of up to 15 gallons per minute were encountered during both the June and October inventories. Travertine deposits are common at these springs, suggesting that the recharge area for these springs is dominated by limestone (probably the North Horn Formation on the ridges to the north and west). The Blackhawk Formation apparently serves more as a conveyance body rather than a significant source of water to these springs.

Several seeps and springs issue at the site from colluvium overlying sandstone of the Blackhawk Formation and the Castlegate Sandstone. These seeps normally occur in drainage bottoms where shallow subsurface water collects at topographic lows. Nearly all flows from seeps of this type were insignificant in both June and October, suggesting (together with the topographic position) that these seeps are intermittent in nature.

Most seeps and springs issuing within the survey area from the Castlegate and Star Point Sandstones flow from bedding planes within these formations. Flows issuing in this manner were generally low during the June inventory (less than one gallon per minute) and nonexistent during the October inventory.

As noted, flow rates measured during the October survey were generally significantly less than those found during the June survey. In June, a total of 80 seeps or springs were found, 34 of which had sufficient flow to sample (the remaining 46 were seeps that could not be sampled). In October, 55 of the sources originally discovered were dry. An additional 7 sources existed only as seeps, with only 18 of the original sources containing sufficient flow to sample.

The results of the seep and spring inventory tend to support the conclusion of Danielson et al. (1981) that groundwater occurs in most geologic formations at the site (all but the Masuk Shale Member of the Mancos Shale), but none of the units are saturated everywhere. No continuous zones of saturation appear to be present at the site, indicating that potentiometric surface maps would be difficult to prepare. Based on the conclusions of Danielson et al. (1981), it is assumed that groundwater within the permit and adjacent areas flows toward the main canyons (Crandall, Blind, and Huntington) and then along Huntington Canyon to the valley bottom.

The data indicates that the specific conductance of water issuing from springs in June generally increased with increasing stratigraphic depth. This is in agreement with findings of Danielson et al. (1981). Springs issuing from the Price River

Formation typically had a specific conductance during the June survey that varied from 150 to 450 umhos/cm at 25°C while those issuing from the Blackhawk Formation and Star Point Sandstone had a specific conductance varying from 500 to 1000 umhos/cm at 25°C. This increase in specific conductance is indicative of leaching of minerals by the groundwater as it flows through increasing distances of bedrock to the lower stratigraphic positions.

The pH of water issuing from springs in the survey area showed no trends within or between formations. Values varied from 6.80 to 8.57, averaging 7.74. Hence, spring water in the study area is slightly alkaline.

In those springs with sufficient water to sample, pH generally increased slightly between June and October. Increases normally amounted to 0.1 to 0.5 pH unit. Specific conductance showed no consistent pattern between the June and October data, with approximately as many increases as decreases between June and October.

Inflow to the existing underground workings is variable and increases during the spring snow melt. Maximum inflow into the mine is estimated to be 100 gallons per minute during the snowmelt period. During the remainder of the year mine inflow is significantly less. The increase of mine inflow during the snowmelt period indicates that recharge to the perched aquifers is localized and water flows into the mine in direct response to the perched aquifers being recharged by the snowmelt. A three acre-foot sump is located in the mine and is capable of containing all mine inflows. To date there has never been any discharge of mine water to the surface. Currently, water encountered in the mine is used underground in the mining process.

B. Surface Water

Crandall Canyon Creek is an east-flowing tributary of Huntington Creek, one of the major tributaries of the San Rafael River. Huntington Creek had annual flows near Huntington ranging from 25,000 to 150,000 acre-feet during the period of October 1931 through September 1973, averaging 65,000 acre-feet per year (Waddell et al., 1981). Variations in the annual flow of Huntington Creek near Huntington are portrayed graphically in Figure 4.

Approximately 50 to 70 percent of streamflow in the mountain streams of the region occurs during May through July (Waddell et al., 1981). Streamflow during this late spring/early summer period is the result of snowmelt runoff. Such seasonal variations are common for streams in the area (Waddell et al., 1981).

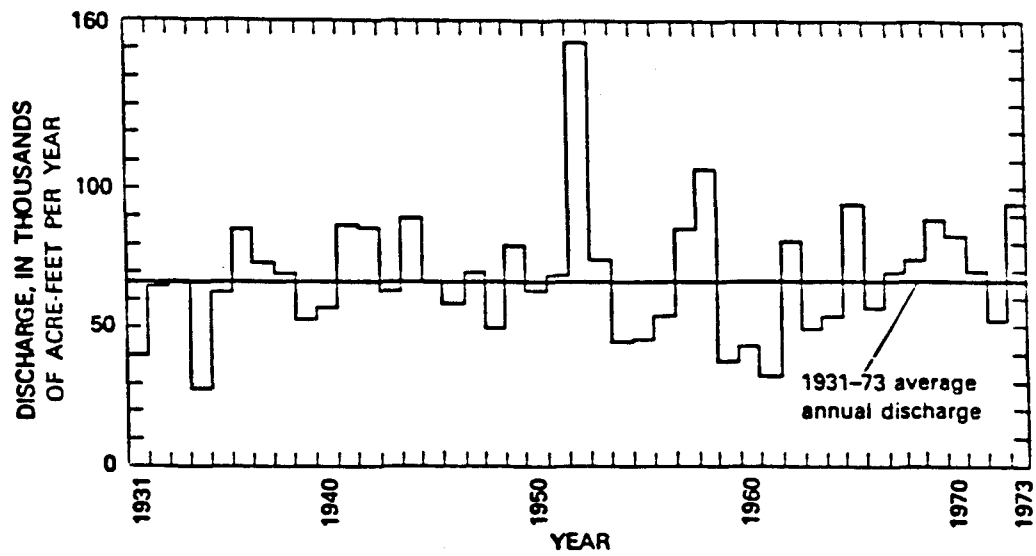


Figure 4

Annual discharge of Huntington Creek near Huntington
(from Waddell et al., 1981).

The quality of water in Huntington Creek and other similar streams in the area varies significantly with distance downstream. Waddell et al. (1981) found that concentrations of dissolved solids varied from 125 to 375 milligrams per liter in reaches above major diversions to 1600 to 4025 milligrams per liter in reaches below major irrigation diversions and population centers. The major ions at the upper sites were found to be calcium, magnesium, and bicarbonate, whereas sodium and sulfate became more dominant at the lower sites. They attributed these changes to (1) diversion of water containing low dissolved solids concentrations, (2) subsequent irrigation and return drainage from moderate to highly saline soils, (3) groundwater seepage, and (4) inflow of sewage and pollutants from population centers.

Average annual sediment yields within the Huntington Creek drainage basin range from approximately 0.1 acre-feet per square mile in the headwaters area to about 3.0 acre-feet per square mile near the confluence with the San Rafael River (Waddell et al., 1981). Increases in sediment yield with increasing distance downstream is generally the result of increasing amounts of shale and sandstone in the downstream direction (Waddell et al., 1981).

The U. S. Geological Survey established a gaging station at the mouth of Crandall Canyon Creek in 1978. Flow data collected at the gaging station are not complete for the winter in most years, due presumably to data acquisition problems. However, the limited data indicate that most of the flow of Crandall Canyon Creek occurs in the period of May through July, in keeping with the conclusions of Waddell et al. (1981). Assuming an average of 30 acre-feet per month for the period of missing record, the average annual flow for the six year period of data was 2740 acre-feet.

Surface water quality data collected from Crandall Canyon Creek by Genwal for the Tract 1 Lease from 1985 indicate that the dominant ions in Crandall Canyon Creek are calcium and bicarbonate. Total dissolved solids concentrations in the stream have varied from 180 to 286 milligrams per liter, with lower concentrations normally occurring during the high flow season. Total suspended solids concentrations in Crandall Canyon Creek have varied during the period of record from 70.5 to 208.0 milligrams per liter. As expected, the highest suspended solids concentrations generally occur during periods of highest flow.

Vi. Potential Hydrologic Impacts

A. Ground Water

Dewatering and subsidence related to mining have the greatest potential for impacting groundwater resources in the CIA.

Dewatering

The applicant has stated that inflow into the underground workings in the Tract 1 Lease is variable and increases during the spring snow melt period. Maximum inflow into the mine is estimated to be 100 gallons per minute during the snow melt period. During the remainder of the year mine inflow is significantly less. A three acre-foot sump is located in the mine and is capable of containing all mine inflows. To date, there has never been any discharge of mine water to the surface. Currently, water encountered in the mine is used underground in the mining process. The applicant has obtained a NPDES permit to cover discharge from the mine in the event that larger quantities of groundwater are encountered than can be utilized underground. Continued interception of mine inflow may potentially dewater certain localized aquifers not only during the first five year permit term but also throughout the life-of-mine if the workings are further developed into new lease areas.

Subsidence

Subsidence impacts are largely related to extension and expansion of the existing fracture system and upward propagation of new fractures. Inasmuch as vertical and lateral migration of water appears to be largely controlled by fracture conduits, readjustment or realignment in the conduit system may potentially produce changes in the configuration of ground-water flow. Potential changes include increased flow rates along fractures that have "opened" and diverting flow along new fractures or permeable lithologies. Subsurface flow diversions may cause the depletion of water in certain localized aquifers, whereas increased flow rates along fractures would reduce ground-water residence time and potentially improve water quality.

Therefore, mining in the Tract 2 permit area may dewater certain localized aquifers and affect flow rates along existing or new subsidence related fractures. However, these impacts will be localized near the mine permit area. No other ground water disturbances exist within the CIA and cumulative hydrologic impacts are not expected.

B. Surface Water

The main concern in terms of impact to surface water is water quality deterioration downstream from the minesite, primarily in the form of suspended sediments. Typically the suspended sediment concentration in Crandall Canyon Creek since 1983 varied from approximately 205 mg/l to 0.5 mg/l. The low suspended sediment

values are associated with natural climatic and geologic process although a proportion may be attributed to surface disturbances from roads and the mine pad area. Sediment controls do exist for the disturbed surface areas. Therefore, the impact associated with mining in Crandall Canyon is minimized by surface controls (i.e., sediment pond, diversions, etc.). No other surface disturbances due to mining occur within the CIA and therefore cumulative hydrologic impacts are not expected.

The operational design proposed for the Crandall Canyon Mine is herein determined to be consistent with preventing damage to the hydrologic balance outside the mine plan area.

0689R

REFERENCES

- Danielson, T. W., M.D. ReMillard, and R. H. Fuller. 1981. Hydrology of the Coal-Resource Areas in the Upper Drainages of Huntington and Cottonwood Creeks, Central Utah. U. S. Geological Survey Water-Resources Investigations Open-File Report 81-539. Salt Lake City, Utah
- Doelling, H. H. 1972. Central Utah Coal Fields: Sevier-Sanpete, Wasatch Plateau, Book Cliffs, and Emery. Utah Geological and Mineral Survey Monograph Series No. 3. Salt Lake City, Utah.
- Lines, G. C. 1983. Water Resources Division, U. S. Geological Survey, Salt Lake City, Utah. Personal communication.
- Simons, Li and Associates. 1984. Cumulative Hydrologic Impact Assessment Huntington Creek Basin, Emery County, Utah. Fort Collins, Colorado
- Waddell, K. M., P. K. Contrato, C. T. Sumsion, and J. R. Butler. 1981. Hydrologic Reconnaissance of the Wasatch Plateau-Book Cliffs Coal-Fields Area, Utah. U. S. Geological Survey Water Supply Paper 2068. Washington, D. C.

STIPULATION

Genwal Coal Company
Crandall Canyon Mine
Tract 2
ACT/015/032
Emery County, Utah

October 3, 1986

Stipulation 817.97-(1)-LK

1. Within 60 days of final permit approval, the applicant must finalize a mitigation plan for potentially impacted seeps and springs that is acceptable to the DWR and submit this plan to DOGM for review and approval.

0682R-9

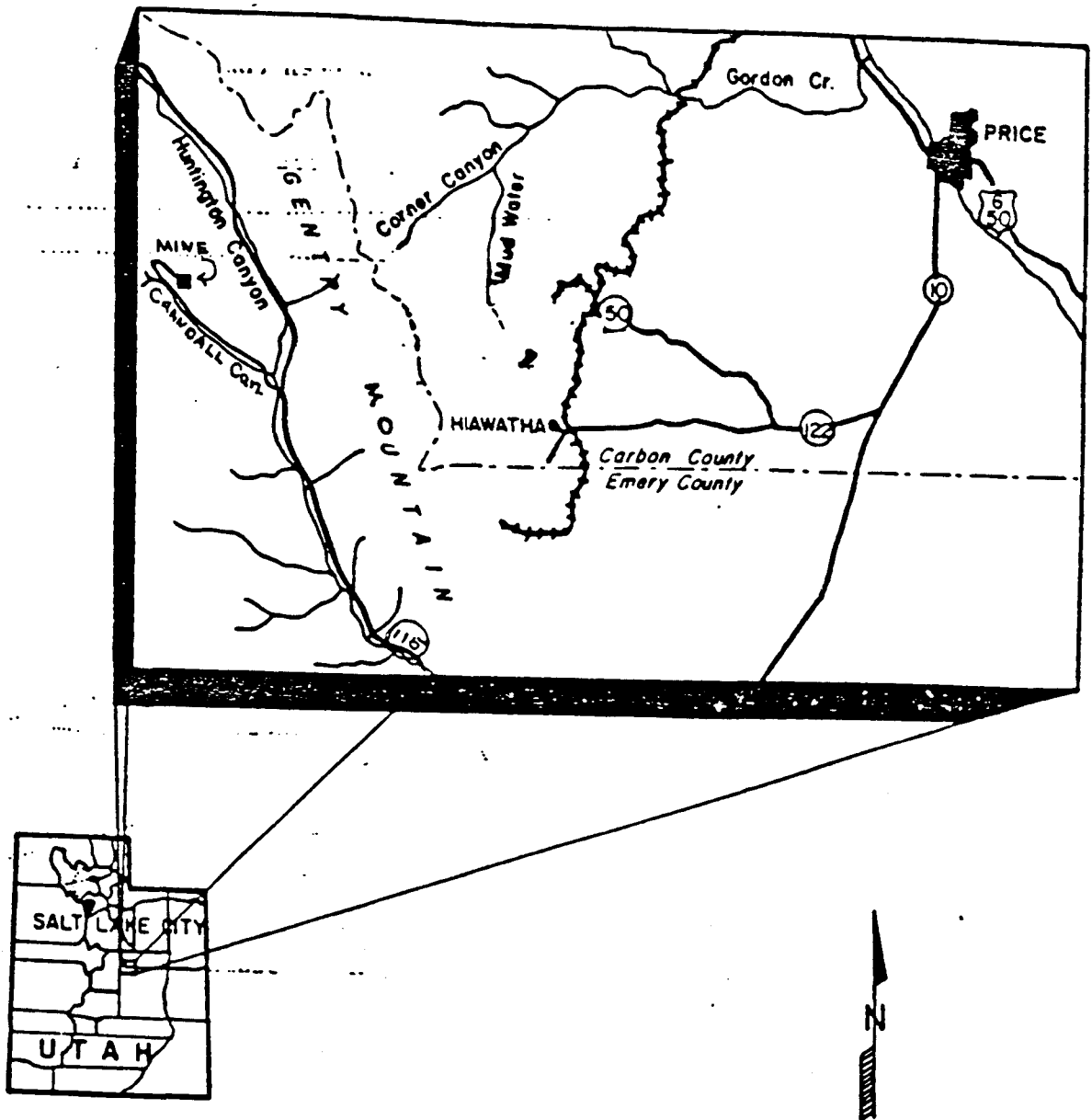


FIGURE 1-1

LOCATION MAP

Genwal Coal Company
Crandall Canyon Mine
Emery County, Utah

TECHNICAL ANALYSIS

Genwal Coal Company
Crandall Canyon Mine
Tract 2
ACT/015/032
Emery County, Utah

October 3, 1986

Introduction

Genwal Coal Company proposes to add 77.53 acres to its currently approved permit area for the Crandall Canyon Mine. The additional acreage comprises a portion of Federal Lease SL-062648. The surface lands are controlled by the U. S. Forest Service (USFS), and are within the Manti-LaSal National Forest.

The Mining and Reclamation Plan (MRP) for the Crandall Canyon Tract 1 permit, which comprises the other portion of Federal Lease SL-062648, a small fee lease and a USFS Special Use Area for a total of 86.84 acres, was approved by the Office of Surface Mining (OSM) November 24, 1982 and by the Division of Oil, Gas and Mining (DOGM) May 13, 1983.

The new permit application area is estimated to contain 811,000 tons of coal in place in the Hiawatha seam. Access to this permit area will be gained by extending the North Main entries underground from the Tract 1 permit area. The current method of room-and-pillar mining will continue to be used. Mining of the new tract will be accomplished through use of the surface facilities built or approved to be built for the Tract 1 permit area. No additional surface disturbance will be required to mine Tract 2.

Genwal Coal Company (Genwal) submitted a new permit application for the Tract 2 permit area on July 18, 1984. Due to repermitting efforts, DOGM did not complete its Initial Completeness Review (ICR) until July 10, 1985. Genwal submitted a revised Lease Tract 2 application on August 16, 1985. DOGM responded with a Determination of Completeness (DOC) review on September 27, 1985. Genwal submitted additional information on November 6, 1985 which DOGM responded to with another DOC review letter on November 25, 1985. Genwal submitted additional information on December 26, 1985 and January 7, 1986. The plan was determined complete on January 10, 1986.

The following technical sections include an analysis of how Genwal will comply with specific performance standards applicable to the MRP proposed for the Tract 2 permit area. Compliance with all other performance standards was determined to be the same as in the previously approved MRP and associated Technical Analysis (TA).

UMC 817.48 Hydrologic Balance: Acid-forming and Toxic-forming
Materials - PGL

Existing Environment and Applicant's Proposal

The applicant stated on page 1-5 that development waste will not be brought to the surface. Therefore, no drainage from acid-forming and toxic-forming underground development waste will be exposed at the surface.

Compliance

The applicant complies with this section.

Stipulations

None.

UMC 817.50 Underground Mine Entry and Access Discharges - DC

Existing Environment and Applicant's Proposal

The applicant has stated that inflow into the underground workings in the Tract 1 Lease is variable and increases during the spring snow melt period. Maximum inflow into the mine is estimated to be 100 gallons per minute during the snow melt period. During the remainder of the year mine inflow is significantly less. A three acre-foot sump is located in the mine and is capable of containing all mine inflows. To date, there has never been any discharge of mine water to the surface. Currently, water encountered in the mine is used underground in the mining process. The applicant has obtained a NPDES permit to cover discharge from the mine in the event that larger quantities of groundwater are encountered than can be utilized underground.

Compliance

The applicant's proposal meets the general requirements of this section.

Stipulations

None.

UMC 817.52 Surface and Ground Water Monitoring - DC

Existing Environment and Applicant's Proposal

Surface Water

The applicant has provided U. S. Geological Survey (USGS) surface water flow and quality data for Crandall Canyon Creek to establish baseline conditions for this area (Appendices 7-1, 7-2, Tract 2 MRP).

Two 36-inch Parshall flumes were installed in July 1985 on Crandall Canyon Creek as indicated on Figure 7-7, Tract 2 MRP, August 16, 1985 (one upstream from the surface facilities and one downstream). These flumes have been equipped with Stevens Type-F water level recorders to allow the collection of continuous flow data.

Water quality samples will be collected from the flume locations quarterly (normally in January, April, July and October) and analyzed according to the list contained in Table 7-6, Tract 2 MRP, August 16, 1985. Every fifth year (1985, 1990, etc.), the samples collected during the low flow period will be analyzed according to Table 7-7 (Tract 2 MRP, August 16, 1985). Surface water monitoring data will be submitted to DOGM on a quarterly basis. At the end of each calendar year, an annual summary describing variations in flows and quality will be submitted.

Discharges from the sedimentation pond will be analyzed in accordance with the NPDES permit for the facility.

Compliance

The applicant's plan to monitor surface water in Crandall Canyon Creek will be adequate to identify significant changes and impacts to the existing surface water regime due to mining in the Tract 2 Lease. The surface facility configuration will not change due to the mining in the Tract 2 Lease. Additionally, the surface water monitoring program proposed by the applicant adheres to the Guidelines for Establishment of Surface and Ground Water Monitoring Programs as prepared by DOGM. Therefore, the applicant is in compliance with this section.

Stipulations

None.

Existing Environment and Applicant's Proposal

Ground Water

The applicant has proposed a ground water monitoring program based on the results of a seep and spring survey conducted in June and October of 1985, Tract 2 MRP, August 16, 1985. Only one spring was found during the June 1985 survey within the area of potential subsidence with a flow rate of at least one gallon per minute. This spring is located above the Tract 1 Lease and should not be affected by mining in the Tract 2 Lease. All major springs (flows of at least five gallons per minute) found during the June 1985 survey were located outside the area of potential subsidence.

Ground water monitoring for the Crandall Canyon Mine area will consist of collecting water quality and quantity data from six springs located within and adjacent to the mine permit area as well as points of significant inflow to the underground workings. The proposed locations of the springs are shown on Figure 7-2, Tract 2 MRP, August 16, 1985.

The monitoring points are located both within the area of potential subsidence and at a distance from the mine to serve as indicators of long-term changes in ground water issuing from the Blackhawk Formation. In addition, one spring issuing from the overlying Castlegate Sandstone will be monitored because of its close proximity to the mine workings and because a water right has been filed on this spring by the U. S. Forest Service (USFS).

Four samples will be collected from the monitored springs annually. With the exception of the spring located within the area of potential subsidence, each spring will be monitored at monthly increments during the accessible portion of the year (generally June through September). Samples will be analyzed according to the list of parameters on Table 7-3, Tract 2 MRP, August 16, 1985. The spring located within the area of potential subsidence is accessible year-round and will, therefore, be monitored quarterly (January, April, July and October) according to Table 7-3, Tract 2 Lease MRP, August 16, 1985. Every fifth year (1985, 1990, etc.), samples collected during the low flow period will be analyzed according to the list of parameters contained in Table 7-4, Tract 2 MRP, August 16, 1985.

On a quarterly basis (normally January, April, July and October) an inventory will be conducted of the active portion of the mine to identify the location and geologic occurrence of mine inflows that exceed three gallons per minute. In consultation with DOGM, certain of these inflows will be selected for continued monitoring. After selection of the inflow points to be monitored, data will be collected on a quarterly basis and analyzed according to Table 7-3, Tract 2 MRP, August 16, 1985.

At the end of each year, ground water monitoring data will be summarized and submitted to DOGM. The report will include an analysis of mine working water balance, accounting for mine inflows, outflows, consumptive uses and sump storage.

Compliance

The applicant's plan to monitor ground water in the mine permit and adjacent areas will be adequate to identify significant changes or impacts to the existing hydrologic balance due to mining activities in the Tract 2 Lease area. Additionally, the ground

water monitoring program proposed by the applicant adheres to the Guidelines for Establishment of Surface and Ground Water Monitoring Programs as prepared by DOGM. Therefore, the applicant is in compliance with this section.

Stipulations

None.

UMC 817.59 Coal Recovery - PGL

Existing Environment and Applicant's Proposal

The applicant states that the mining recovery is projected to be greater than 50 percent of the total in-place coal (Section 3.3.3.1, page 3-3).

Compliance

The applicant outlined the projected 50 percent recovery of the in-place coal, or 406,000 tons (p. 3-3, Tract 2 MRP). The Bureau of Land Management (BLM) approved the mining plan and the Resource Recovery and Protection Plan on October 11, 1985 (See letter attached to TA).

Stipulations

None.

UMC 817.71 Underground Development Waste and Excess Spoil and Nonacid and Nontoxic-forming Coal Processing - PGL

Existing Environment and Applicant's Proposal

The applicant states that all underground development waste in Tract 2 will be disposed of underground (Section 3.5.9, page 3-1 and Section 1.2, page 1-5). Therefore, this section is not applicable.

UMC 817.97 Protection of Fish, Wildlife and Related Environmental Values - LK

Existing Environment and Applicant's Proposal

The Tract 2 area is on a south facing, steep slope in Crandall Canyon and dominant vegetation types occurring on the area are sagebrush, mountain shrub/grassland and aspen (Plate 9-1). The entire Tract is within high priority deer and elk summer range (Plate 10-1). Several springs occur within and adjacent to the Tract 2 area which have been identified as being of critical value to wildlife by the Utah Division of Wildlife Resources.

The applicant has identified that the only potential impacts to wildlife from mining this area may come from subsidence, which could impact springs and seeps and riparian habitats (no additional surface disturbance planned) (Chapter 10, page 1). Proposed wildlife mitigation includes an employee education program presenting potential wildlife impacts and admonishing employees to avoid unnecessary disturbance and harassment of wildlife. In addition, the applicant is currently working on a mitigation plan with the Utah Division of Wildlife Resources (DWR) to mitigate potential impacts for losses of springs due to subsidence (Chapter 10, page 2).

Compliance

The applicant has provided sufficient wildlife information to identify potential impacts and has proposed acceptable mitigation with the exception of mitigation for potentially impacted seeps and springs. Even though the applicant is currently working on a mitigation plan with DWR, until this plan is finalized and included in the plan, the applicant is not in compliance. Therefore, the following stipulation is necessary for compliance.

Stipulation 817.97-(1)-LK

1. Within 60 days of final permit approval, the applicant must finalize a mitigation plan for potentially impacted seeps and springs that is acceptable to the DWR and submit this plan to DOGM for review and approval.

UMC 817.121 Subsidence Control: General Requirements - DD

Existing Environment and Applicant's Proposal

The applicant has submitted complete plans (MRP Chapter 12) consistent with known technology to prevent subsidence from causing material damage to surface features and renewable resources, to the extent technologically and economically feasible. Subsidence is planned and will be maintained in a controlled manner. No adverse effects from subsidence are expected to occur. Subsidence will be monitored annually in accordance with the USFS subsidence monitoring schedule (Item 12-12, MRP).

Compliance

The applicant complies with this section.

Stipulation

None.

UMC 817.122 Subsidence Control: Public Notice - DD

Existing Environment and Applicant's Proposal

The mine is located on and adjacent to federal lands and leases. Information concerning the mining sequence and subsidence potential has been submitted to the respective federal agencies.

Compliance

The applicant complies with this section.

Stipulation

None.

UMC 817.124 Subsidence Control: Surface Owner Protection - DD

Existing Environment and Applicant's Proposal

The applicant has submitted plans to conduct subsidence in a controlled manner (Chapter 12 Tract 2 MRP) to prevent reduced value or loss of reasonable foreseeable use of surface lands. A survey completed by the applicant shows no buildings or other facilities in the area that can be affected by subsidence.

Compliance

The applicant has not completely addressed remedial action needed in the event surface features such as springs and wildlife habitat should become affected.

Stipulation 817.124-(1)-DD

Same as Stipulation UMC 817.97-(1)-LK.

UMC 817.126 Subsidence Control: Buffer Zone - DD

Existing Environment and Applicant's Proposal

Subsidence plans submitted by the applicant allow for buffer zones adjacent to perennial streams or significant water sources (public water supply). Plans show that aquifers will not be disrupted by subsidence and that no buildings, impoundments or facilities exist on the area to be undermined.

Compliance

The applicant is in compliance with this section.

Stipulation

None.



STATE OF UTAH
NATURAL RESOURCES
Wildlife Resources

1596 West North Temple • Salt Lake City, UT 84116-3154 • 801-533-9333

big mine file
CC L. Braxton
S. Linner
Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
William H. Geer, Division Director

April 18, 1986

Dr. Dianne R. Nielson, Director
Utah Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Attn: Lowell Braxton
Susan Linner

Dear Dianne:

The Division has evaluated Genwal Coal Company's February 1, 1986, resubmittal of a Mining and Reclamation Plan (MRP) for Tract I as a mid-permit review at the Crandall Canyon Mine. The following is offered for your consideration.

Volume I

Page III-19, 3.4.6.1 - The MRP is in substantial error regarding fisheries and must be corrected. Crandall Creek, which flows immediately adjacent to the entire length of the south border of Tract I (note, it flows through the 1.7 acre parcel of Tract I leased from Beaver Creek Coal Company) is a high-priority valued Class III fishery. Trout are evident in the stream about 2,000 feet downstream from the S.E. corner of Tract I. This area supports natural reproduction of 278 (II) cutthroat trout per mile with a standing trout biomass of 53 lb./surface acre.

If the applicant at some later date elects to bring UP&L electric service to the mine, raptor nesting must be addressed. (Note, file correspondence dated September 25, 1985, from John Livesay to Jim Burris.)

Page III-20, 3.4.6.2 - It should be noted that during 1981, when the company was preparing plans to culvert 1,000 linear feet of the stream on the permit area, culverting and associated loss of riparian habitat was recommended only upon appropriate mitigation (reference file memo November 6, 1981 from Douglas F. Day to Cleon B. Feight). To date the culvert has not been installed, however, confines of physical space in the surface facilities area could necessitate such. When such action becomes imminent, a mitigation plan needs to be affected. Also note that this culvert would require a "permit to alter a natural stream" issued by the Division of Water Rights.

Dr. Dianne R. Nielson
Attn: Lowell Braxton and Susan Linner
April 18, 1986
Page 2

Paragraphs concerning elk, mule deer and moose are in substantial error. Appropriate data was provided to the company in March of 1981. (Reference file memo dated March 10, 1981 from John Livesay to Bill Wollen.) This data included maps for seasonal distributions of all big game (including moose) associated with the project.

Page III-20 and X-5 - If losses of 0.5 acre or 3,000 sq. feet (the MRP is unclear on this area) of critical valued riparian habitat in the lower 2 km of the canyon occurred under the auspices of Utah's coal mining regulations, mitigation is required. To date the company has not prepared a mitigation plan or affected such. The indication in the MRP on Page III-34 (second to last paragraph) that a seed list for such mitigation exists should be more exacting. The seed list, reclamation technology and area for mitigation need to be defined.

Page IV-4 through IV-6, 4.4.2 - The use of wildlife on the permit area is not limited to just big game animals. As many as 239 different species of vertebrate wildlife have potential to utilize the environs associated with the project. Relative biological value of seasonal use areas has earlier (3-10-81) been identified to the company.

Page IV-6, first paragraph - Livestock use of the riparian zone has caused substantial and noticeable degradation to this critical valued habitat type. Selection of a riparian reference area should give consideration to fencing. This same protection should be given to riparian mitigation areas.

Page 7-27, 7.1.4 last paragraph and 7-29 first paragraph - All permanent seeps and springs are ranked as being of critical value to wildlife. Without an indepth and specific study to determine wildlife use of springs, the cursory evaluation of such by the applicant is not meritorious of a conclusion. The company was provided a synopsis of the Division's position concerning seeps and springs/wildlife relationships March 10, 1986. The MRP needs to be corrected to this position. Similar comments have been provided in earlier MRP reviews (12-18-85 and 9-6-85).

Volume II

Chapters 9 and 10 are redundant to the extent that "Terrestrial Wildlife and Habitat" report (pages 40-66) prepared by Valley Engineering is presented in each chapter. Therefore comments on Wildlife and Habitat will only be made for Chapter 10. Also, note that all comments within the MRP relative to fish are inaccurate and need to be corrected.

Page X-2, 10.3 -Crandall Creek is a trout fishery (reference comments for page III-19). The applicant was made aware of this as early as May, 1981 in the U.S. Forest Service's environmental assessment report for the applicants Huntington River bridge crossing and Crandall Canyon road.

Dr. Dianne R. Nielson
Attn: Lowell Braxton and Susan Linner
April 18, 1986
Page 3

Page X-5, last paragraph - The moose herd from 1973 through 1979 showed signs of slowly increasing. However, illegal harvest, habitat losses and disturbance by man has since reversed that trend.

Page X-6 , 10.6 through 10-8 - No activities associated with the mine should allow turbidity in Crandall Creek to increase more than 10 units above background measurements as determined by nephelometric turbidity units.

Chapter X, page 43 of "Terrestrial Wildlife and Habitat Report" - Comments relative to bald eagles are in substantial error. Appropriate information was provided to the applicant 3-10-81. Bald eagles during the winter season are regularly observed in the Huntington Canyon area and would be expected to utilize the environs of Crandall Canyon.

Chapter X, page 46 of "Terrestrial Wildlife and Habitat Report" - The Williamson's sapsucker has been documented to utilize (nest) the environs of the Huntington drainage typical to those found in Crandall Canyon. The applicant must appropriately correct the MRP.

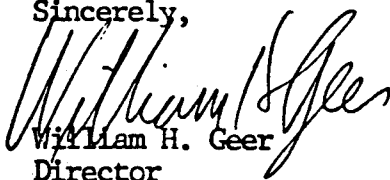
Chapter X, page 49, 55 and 56 of "Terrestrial Wildlife and Habitat Report" - All amphibians and reptiles in Utah are protected species. Six amphibian and eighteen reptilian species have potential to inhabit the project area. This data was provided to the applicant 3-10-81. The MRP needs to be appropriately corrected. Similar statements can be made for birds and mammals.

A detailed recommended wildlife mitigation plan was provided the applicant on 3-10-81. The mine must commit to educating its personnel concerning protection of the wildlife resource. A coal mining/wildlife training film has been developed by the Division for industries' use. It is available for the cost of copy reproduction.

Page 12-12, 12.4.3 - The MRP as it discusses subsidence relative to seeps and springs is in substantial error. All permanent seeps or springs are ranked as being of critical value to the wildlife resource and not as "an insignificant resource". Mitigation in the form of water replacement is anticipated when daily flows at seeps or springs are reduced by 50% or more. (Reference file memo dated March 10, 1986 from John Livesay to Andy King.)

Thank you for an opportunity to review and provide comment.

Sincerely,


William H. Geer
Director

U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT
NOTICE OF A DECISION AND AVAILABILITY
OF BOTH A TECHNICAL ANALYSIS AND AN
ENVIRONMENTAL ASSESSMENT FOR
GENWAL COAL COMPANY
PERMANENT PROGRAM PERMIT
CRANDALL CANYON MINE
EMERY COUNTY, UTAH

The United States Department of the Interior, Office of Surface Mining Reclamation and Enforcement (OSMRE), has approved, with conditions, a permit revision for Genwal Coal Company to continue mining coal at its Crandall Canyon Mine.

The Crandall Canyon Mine underground coal mine is located in Emery County, Utah, approximately 13 miles northeast of Huntington, Utah. The mine has been in operation since 1983. The permit area, as revised, covers approximately 164 acres, approximately six of which have been disturbed to date. No additional surface disturbance is anticipated except potential surface disturbance due to subsidence. Maximum mine production is at a rate of 360,000 tons of coal over three years.

Any person with an interest which is or may be adversely affected by this Federal permit approval action may request an adjudicatory hearing on the final decision within 30 days after publication of this notice, in accordance with Section 514(c) of the Surface Mining Control and Reclamation Act (SMCRA). Any hearing will be governed by provisions of 5 U.S.C. Section 554. A petition for review of the OSMRE decision should be submitted to:

Hearings Division
Office of Hearings and Appeals
U.S. Department of the Interior
4015 Wilson Boulevard
Arlington, Virginia 22203

Pursuant to 40 C.F.R. Sections 1501.4(c) and 1506.6, notice is hereby given that Utah Division of Oil, Gas and Mining has completed a technical analysis (TA) for the mining and reclamation plan (mining plan) for the Crandall Canyon Mine, Emery County, Utah. OSMRE has supplemented this TA with its own environmental assessment (EA). OSMRE's recommendation to approve Genwal Coal Company's mining plan and the permit application with conditions is in accordance with Sections 510 and 523 of SMCRA. OSMRE's analysis is that no significant environmental impacts would result from such approval. For information or clarification concerning the approval of the Crandall Canyon Mine Plan, please contact Richard Holbrook at (303) 844-2451, Office of Surface Mining Reclamation and Enforcement, Denver, Colorado.

Both the TA and the EA are available for public review at the following locations:

Office of Surface Mining Reclamation and Enforcement
Western Field Operations
1020 15th Street
Denver, Colorado 80202

Office of Surface Mining Reclamation and Enforcement
Albuquerque Field Office
219 Central Avenue NW
Albuquerque, New Mexico 87102

Utah Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180

1098M